

# SMOKE SIGNALS

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 28th Year  
Single Copy: \$1.25

Return Address:  
Kenneth A. Ebnetter  
822 Wauona Trail  
Portage, WI 53901

STANDARD MAIL  
Forwarding and  
Return Postage Guaranteed Address  
Correction Requested

Bulk Rate  
U.S. Postage  
PAID  
Permit #265  
Portage WI 53901

Vol. 28 No. 1 • 323rd Consecutive Monthly Issue • Baraboo, Wisconsin • January 1997

## OZARES Simulated Emergency Test: Get lost, Stan!

Early on a Saturday morning, Ozaukee County's Emergency Coordinator Stan Kaplan, WB9RQR, was not feeling well and drove himself to the hospital, arriving at 3:00 a.m. After a series of tests revealed nothing wrong, he left, and was later stopped by a county sheriff's deputy for erratic driving, but released. When friends N9SFG and N9VBJ stopped at his house in the morning to take him to breakfast, he was not there, and they reported him missing. The local police began a search within the city and OZARES (Ozaukee County's ARES/RACES group) was alerted to form mobile search teams for operations outside the city. A dog team was put on alert in case they were needed.

No, it didn't really happen quite that way! This just describes the interesting scenario devised by OZARES Assistant Emergency Coordinator for Training Jack Morrison (N9SFG) for the 1996 SET (ARRL Simulated Emergency Test) on 9 November 1996.

The OZARES SET was actually part of a larger Ozaukee County Emergency Management exercise involving OZARES, Emergency Management itself, dog teams from Great Lakes Search and Rescue K9 and the Ozaukee County Sheriff's Department. The first three groups participated in a field search for Stan (WB9RQR), who was supposed to be a lost, disoriented patient. Stan really did "lose" himself, but all according to a prearranged plan.

The search began, and OZARES Mobile Team 1 spotted Stan's abandoned car on a dirt road leading to a farmer's field in a rural area. The dog teams were called out and a Command Post was set up near the car. OZARES members were assigned to each dog team to provide field communications, and the search began.

Meanwhile, Stan was hiding in a heavily wooded area. He had already laid out a series of erratic trails, some doubling back on themselves, in order to give the dog teams a real workout. The teams scoured the woods and surrounding area,

and passed within 150 feet of Stan on several occasions. Finally, the dog "Mr. Tibbs" got a whiff of scent strong enough to lead him up the side of a hill, where Stan was hiding in an underbrush covered depression. The search ended when Mr. Tibbs presented Stan with a tail-wagging hello and several very sloppy kisses (Mr. Tibbs is a very LARGE dog!).

At this point, Stan was to play the part of an unresponsive patient, and an ambulance was to have been dispatched to take him to the hospital. However, the ambulance company could only participate if they had one complete crew on duty in case of a real emergency, plus a crew to take part in the exercise. They came up one person short that morning, and so could not join the exercise. Therefore, it ended when Mr. Tibbs found Stan.

The participants returned to the county Justice Center for a critique. It was concluded that the operation was a complete success; everyone had done their job quickly and efficiently. Communications support was excellent, the dog teams were terrific, and everyone enjoyed the woodland operation on a sunny (but cool) Saturday morning. The only casualty was OZARES member N9SBA, who experienced wet boots and pants when he missed during a jump across a river. The participating hams included:

### OZARES MEMBERS

- |           |           |
|-----------|-----------|
| 1. W9BTN  | 8. N9SBA  |
| 2. AA9CI  | 9. N9SFG  |
| 3. KA9DDN | 10. N9SQA |
| 4. AA9OS  | 11. N9UNR |
| 5. KA9QLP | 12. N9VBJ |
| 6. KA9RFM | 13. N9WHT |
| 7. WB9RQR |           |

### OTHER HAMS

KB9NLF: Washington County ARES Representative

## HaPpY NeW YeAr!

### Mars Global Surveyor relay test a success

The Mars Global Surveyor relay test in late November was a tremendous success (see "DXing enroute to the Red Planet," *QST*, Jan 1996). The MGS was launched on November 7 from Cape Canaveral, Florida. By the time the relay test arrived, the MGS was 3.1 million miles from Earth. For several hours, the spacecraft sent a steady carrier of 1.3 W at 437.1 MHz into a near-isotropic antenna. Many amateurs around the world participated in trying to detect the extremely weak signal, a lot of them successfully using the AF9Y FFTDSP program. On his Web page (<http://www.webcom.com/af9y>), Mike Cook, AF9Y, of Hometown, Indiana, displays the FFTDSP spectrograms of MGS for the initial CW Mode at 1413 UTC on November 25, 1996, using two 5-foot helix antennas. He reports that his receiver was set so that 800 Hz on the FFTDSP screen corresponded to 437.09551 MHz--which was estimated to be the receive frequency at the start of CW mode. MGS actually was detected 180 Hz lower, at 980 Hz (Cook says that in CW mode, the receiver will shift the FFTDSP trace to the right as the receive signal moves down). AF9Y says the signal level dropped below detection for 45 minutes during the worst-gain period of the spacecraft's rotation.

At the station of Darrel Emerson, AA7FV, in Tucson, Arizona, the approach was to try very high frequency resolution to pull the signal out of the noise, allowing for changing Doppler shift from the heliocentric orbital motion of the Mars Relay transmitter. Using a stable reference tone injected into the receiver passband to measure--and then compensate for--receiver phase and frequency drift, a resolution of 0.013 Hz was achieved. The signal width measured from the MGS with this system was 0.0175 Hz, yielding a signal-to-noise ratio of 19 dB from a single 15-element Yagi. Emerson summarized some of his results on <http://ourworld.compuserve.com/homepages/demerson/marsspec.htm>. Emerson reports heavy Internet use during the test to communicate among participants and for the control station at the Stanford dish to update the spacecraft's status.

"It was quite an exhilarating, but exhausting, event for all those who took part," Emerson said in thanking those at Jet Propulsion Lab (JPL) and Stanford University "who made it all possible."

--SpaceNews

The ARRL Letter, 12/13/96

KB9NBU, KB9NBT: Dog team handlers

Patrol (the county abuts Lake Michigan and has a busy harbor in Port Washington). W9BTN is a County Commissioner and chairs the Emergency Management Committee. Several other OZARES members are heavily involved with Emergency Management operations in their local communities.

As a postscript, it is interesting to note the successful cross-involvement between hams and government in Ozaukee County. N9VBJ is full time Director of Emergency Management. OZARES EC WB9RQR is also volunteer Deputy Director of Emergency Management. OZARES AEC N9SFG is Captain of the Rescue Boat in Emergency Management's Water Safety

(Modified for BSSS readers from an article that appeared in the November 1996 issue of the OZARES Newsletter, WB9RQR editor). □

## ON THE INSIDE

What's Happening: Edited by Ken Ebnetter, K9EN	2
Here and There	4, 5
Silent Keys	5
Wisconsin Amateur InterNet Addresses	6
Propagation Predictions: by Woody Minar, K9EF	6
The Computer Corner: By Dr. Stan Kaplan, WB9RQR	7
Working the MIR Space Station 440 MHz Repeater: By Jim Naczek, KB9LTW	9
FAR Announces 1996-1997 Scholarships	9
Riverland Amateur Radio Club	10
Wisconsin Valley Radio Association	10
Wisconsin Nets Association	10
Quarter Century Wireless Association/Southeastern Wisconsin Chapter 162	10
Eau Claire Amateur Radio Club	11
ManCoRad Radio Club	11
Watts Snoo (Central Wisconsin Radio Amateurs at UW/Stevens Point)	11
Washington County Amateur Radio Club	12
Taylor County Area Amateur Radio Club	12
Red Cedar Repeater Association	12
Racine Megacycle Club	13
Sheboygan County Amateur Radio Club	13
Maxim Award Nominations Due	13
AEA, not AES!	13
The Wisconsin Packeteer (Wisconsin Amateur Packet Association)	14
Yellow Thunder Amateur Radio Club	15

Coming soon to a ham band near you....

THE 1997 WISCONSIN QSO PARTY

Sunday, March 9, 1997

Full rules and entry information in  
February Badger State Smoke Signals

See story by Ken Secora, N9KS, on page 8!

The Wisconsin QSO Party is sponsored annually by  
the West Allis Radio Amateur Club, Inc.





# WHAT'S HAPPENING

✕ Swapfests and Other Social Events ✕ Club Meetings  
✕ Amateur Radio Exam Schedules

EDITED BY KENNETH A. EBNETER, K9EN, 822 WAUONA TRAIL, PORTAGE, WI 53901

## Swapfests and Other Social Events

SUNDAY, JANUARY 12, 1997. West Allis ARC, 25th Annual Midwinter Swapfest. Waukesha County Expo Center Forum, Waukesha, WI. Contact: WARAC Swapfest, PO Box 1072, Milwaukee, WI 53201.

TUESDAY, FEBRUARY 25, 1997. Red Cedar Repeater Association, Inc. Auction at the American Legion Post #53, 634 Water St., Eau Claire, WI. Contact: Steve Hart, KA9OMC, E616 810 Ave., Knapp, WI 54749. (715) 665-2374.

SUNDAY, MARCH 9, 1997. SEWFARS SWAPFEST, Waukesha County Expo Center, Waukesha, WI. Contact: SEWFARS, P.O. Box 102, Delafield, WI 53018. (414) 650-0724.

SUNDAY, MARCH 16, 1997. Tri-County ARC Hamfest at the Jefferson County Fairgrounds, Activity Center, Hwy. 18 West, Jefferson, WI. Contact: TCARC, W9MQB, 711 East St., Fort Atkinson, WI 53538. (414) 563-6502 evenings.

SUNDAY APRIL 13, 1997. 25th Annual Madison Swapfest. Exhibition Hall located on the Dane County Fairgrounds in Madison, WI. 30,000 square feet of electronic equipment and components for hams, computer hobbyists and experimenters, Commercial dealers for both new and used equipment. For information contact: MARA, PO box 8890, Madison, WI 53708-8890. (608) 245-8890.

FRIDAY & SATURDAY, APRIL 25-26, 1997. Hamboree 19, Iowa State Convention, Marina Inn, South Sioux City, NE. Contact NFON, mike Nikolaus, 316 East 32nd St., South Sioux City, NE 68776. (402) 494-6074. email menicko@avalon.net.

FRIDAY & SATURDAY, MAY 2-3. AES Superfest 97. Amateur Electronic Supply, Milwaukee, WI. Many supplier displays. Contact: Ray Grenier, K9KHW,

(414) 358-4088. help@aesham.com.

SATURDAY, MAY 3, 1997. 19 annual Cedarburg Swapfest, sponsored by the Ozaukee Radio Club at the Circle-B Recreation Center, Highway 60 and County I (located 20 miles north of Milwaukee, west of Grafton. Admission \$4.00. both in advance and at the door. 4-foot tables are \$5.00. Food and refreshments available. Sellers set up 6:30 a.m. License exams start at 9:00 a.m. Talk-in on 146.37/97 and 146.52. For additional information, send an sase to ORC Swapfest Chairman, W58 N985 Essex Drive, Cedarburg WI 53012-1439. (414) 377-2784 or (414) 284-3271.

SATURDAY, MAY 10, 1996. Lakeshore Hamfest and Computer Swapfest, Manitowoc County Expo, Manitowoc, WI. Contact Glenn, AA9MT (414) 684-7096 or Red, N9GHE, (414) 684-9097 (nights).

SATURDAY, JULY 12, 1997. South Milwaukee ARC Swapfest. American Legion Post 434, Oak Creek, WI. Contact (414) 762-3235.

See also the back page and flyer ads for additional information on many of these events.

SATURDAY, JULY 12, 1996. Eau Claire ARC Swapfest, Eau Claire County Fairgrounds, Eau Claire, WI. Contact PO Box 1867, Eau Claire, WI 54701., Carol Ceraso (715) 723-9205 or Liz Searing (715) 834-1303.

SUNDAY, JULY 27, 1996. Racine Hamfest, Racine, WI. Contact RMC, PO Box 3, Racine, WI 53401.

Let us know of your dates as soon as you know them. We will list them and perhaps help avoid conflicts with other events.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

## Club Meetings



Due to space limitations, we cannot always carry the full listing of Wisconsin and area club meetings. Please see the September 1996 meetings column for the latest complete listing. The following are additions or changes since that listing.

### MILWAUKEE RADIO AMATEURS CLUB

Last Thursday evening, Redemption Lutheran Church, 4057 North Mayfair Road, Wauwatosa 53222. Meetings begin at 7:30 p.m. 12 months of the year.

### GREATER MILWAUKEE DX ASSOCIATION

Fourth Monday of the month at 7:30 p.m. Contact any GMDXA member or Gary Schwartz, K9GS, (414) 363-4439, garyk9gs@solaria.sol.net, K9GS@WA9KEC.WI.USA.NOAM, Packet cluster: NB9C, for meeting location.

### M & M AMATEUR RADIO CLUB

General meeting held second Thursday each month at 7:00 p.m. in cafeteria of BAMCm basement, Tenth Ave., Menominee, MI. All amateurs and guests are welcome. Use the 147.000+ repeater. Our net is Sunday at 7:00 p.m. on the repeater. Our address is P.O. Box 1082, Marinette, WI 54143.

### YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)

Days rotate: The January meeting will be January 14, 1997. All meetings will be at the Baraboo Civic Center, room 14, unless otherwise noted. Starting time for the monthly club meeting is 7:30 p.m.. The program starting time after the meeting is 8:00 p.m., with a one hour limit.

## Badger State Smoke Signals

### Amateur Radio Education and Information

CHAIRMAN: Kenneth A. Ebneter, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

EDITOR: Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031. InterNet e-mail: smokesigs@baraboo.com

TREASURER: Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

EDITORIAL BOARD: Ken Ebneter, K9EN; Dave Knaus, WA9POV; Don Evenson, K9JYX; Jim Romelfanger, K9ZZ.

### Subscriptions

1 year	(12 issues)	\$12.00
2 years	(24 issues - save \$2.00)	\$22.00
3 years	(36 issues - save \$4.00)	\$32.00

Special club package reduced rates are available. For information, contact Ken Ebneter, K9EN.

### When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than FIVE DAYS after the club's meeting. For example, if a club meets on the 4th of the month, the

material should be sent no later than the 9th of that month. This material is to be sent to the Editor.

### Where to Send It

Address changes and corrections should be sent to Ken Ebneter.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebneter.

Club, swapfest, and Test Point information should be sent to Ken Ebneter.

Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

### Conditions for Reprinting or BBS Posting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles or posting articles on radio or telephone bulletin boards from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. THIS CREDIT IS MANDATORY, AND NO MATERIAL MAY BE PRINTED OR POSTED UNLESS IT IS GIVEN. This newspaper is produced by volunteer Radio Amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901. *Badger State Smoke Signals* is incorporated as a Wisconsin non-stock, non-profit organization.

### Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

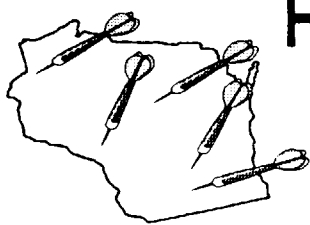
## The Test Point



### Amateur Radio Examination Locations and Schedules in the Wisconsin Area

January 04, 1997	Oshkosh (Omro), WI
January 04, 1997	St. Paul, MN
January 09, 1997	Apple Valley, MN
January 11, 1997	Blaine, MN
January 11, 1997	Bloomington, MN
January 11, 1997	Eau Claire, WI
January 11, 1997	Madison, WI
January 11, 1997	Oak Creek, WI
January 11, 1997	Redgranite, WI
January 15, 1997	Milwaukee, WI (MRAC)
January 18, 1997	Cottage Grove, MN
January 18, 1997	Loves Park, IL
January 18, 1997	Milwaukee (Badger)
January 21, 1997	Eden Prairie, MN
January 25, 1997	Tomahawk, WI
January 25, 1997	Wauwatosa, WI (MRAC)
February 01, 1997	Racine, WI
February 01, 1997	Oshkosh (Omro), WI
February 01, 1997	St. Paul, MN
February 13, 1997	Apple Valley, MN
February 08, 1997	Oak Creek, WI
February 08, 1997	Madison, WI
February 08, 1997	Bloomington, MN
February 08, 1997	Blaine, MN
February 18, 1997	Eden Prairie, MN
February 19, 1997	Milwaukee, WI (MRAC)
February 15, 1997	Loves Park, IL
February 15, 1997	Cottage Grove, MN
February 22, 1997	Wauwatosa, WI (MRAC)
February 22, 1997	Tomahawk, WI
February 15, 1997	Milwaukee (Badger)





## HERE and THERE

### Call sign snafu at FCC affects new hams

Imagine you've just passed your licensing examination and your new ticket finally arrives in the mail bearing your brand-new call sign. Maybe you even order a batch of new QSL cards. Then, you get on the air only to learn that your brand-new call sign isn't your call sign after all, because the FCC already had issued it to someone else!

In fact, in some cases during mid to late October, the FCC's computers apparently issued the same call sign to several individuals at different times. In a way, it's been a game of musical chairs, but one where the last person to be assigned the call sign gets to keep it. Among those affected were Louise Williams, KF4MTE, and John Lake, KF4-MTC, both of Newberry, South Carolina, and George Merchant, KF4MTD, of Joanna, South Carolina. Williams first was issued KF4MTO. A check of the FCC transaction records indicates that KF4MTO was a busy call sign, having first been assigned Williams on October 23, then reassigned on October 30 to another YL in North Carolina before ending up with its "rightful" owner, yet another YL in Tennessee on November 2. Williams

was issued KF4MTE on the same date, but not before the call sign had briefly been assigned first to different individuals in Florida, also on October 23 and October 30, respectively. Lake's and Merchant's call signs had similar histories, and they, in turn, had first received other call signs on their new licenses.

The FCC discovered the problem in late October. Commission personnel were wrestling with computer-related problems for about a week during late October and early November, just prior to issuing the first Gate 2 vanity call signs on November 4. All of those affected appear to be first-time licensees.

"The incorrect licenses were not supposed to be mailed out, but somehow, they were mailed out," said a spokesman at the FCC's Gettysburg, Pennsylvania, office. He said he had "no idea" how many licensees were affected, but he believes the FCC's current database has been corrected so that no call sign has multiple holders. But some people affected might not have gotten the word yet. "The correct licenses might not have been mailed out, so they might be holding a license with the wrong call sign," he conceded. "We're going to try and see which ones didn't get mailed out." He emphasized that the call sign in the current FCC database is the correct call sign. Gettysburg personnel were looking into the reasons for the irregularity with an eye toward making sure it doesn't happen again, he said.

*The ARRL Letter, 12/13/96*

### Multiple club station call signs all legal

The assignment of multiple club station call

signs to the same club station is perfectly legal according to a staff member in the FCC's Private Wireless Division. However, the practice—which has become more prevalent and obvious during the issuance of Gate 2 vanity call signs in November—has raised the hackles of some hams. A California ham wrote the ARRL expressing his concern that the multiple applications were "clearly in violation of the spirit" of the vanity call sign program, and a New York ham asserted that "club calls should be for real clubs, not imaginary ones." Both hams decried the issuance of 23 club station call signs issued to members of one family in California.

The FCC spokesman said, however, that there's nothing in the current regulations to prevent any club from holding several different call signs, nor is there anything to prevent the trustee of those licenses from taking advantage of the vanity call sign program—provided the trustee is willing to put up the \$30 per application.

*The ARRL Letter, 12/13/96*

### AEA finds buyers for its product lines

Advanced Electronic Applications Inc is being sold—piecemeal. AEA Chairman Mike Lamb, N7ML, announced December 10 that AEA will sell each of its three product lines (data products, test analyzers and antennas) to three separate buyers. Letters of intent are in place and agreements are in the drafting stage, according to Lamb, who already had laid off most of the staff at the company's Lynnwood, Washington, headquarters earlier this fall.

Lamb assumed daily control over AEA earlier this year following the sudden departure of former AEA President Rod Proctor, K17ZI. Subsequently, the company introduced several new products (including the long-awaited DSP-232 multimode TNC) to the amateur market, but it appears to have been a case of too little, too late. As of late November, AEA was just barely in business, and telephone callers were being told to contact ARRL "in about a month" for information regarding service arrangements.

The ARRL was not aware that it would be listed by AEA as a contact point, and those seeking customer service should not contact the ARRL to request it. The League cannot help AEA customers with service or technical problems.

Lamb said this week that because of the intervening holidays, he didn't anticipate the sales would be consummated until early January. He said the new owners "will likely offer warranty and out-of-warranty service to old AEA customers." While he declined to reveal the names of the prospective new owners, Lamb said that at least one of the companies was already in the ham radio business "with a very good reputation." He also would not say whether the AEA name would survive the buyouts, but said he expected the new owners would maintain AEA's standards.

Lamb said an official announcement on the buyouts would be made "as soon as the sales are complete."

*The ARRL Letter, 12/13/96*

### New ATV altitude record set

Tom O'Hara, W6ORG, reports: It looks like Mike Henkowski, KC6CCC, owns the ATV altitude record after a rocket launch Saturday, November 23, at Black Rock, Nevada. His 2417-MHz ATV signal gave a view of the Earth all the way up to 53 miles—almost 280,000 feet—before dropping back to hit the dry lake bed floor. The video package survived the impact and helped him home in on the signal as the package lay at the crash site, seven miles from the launch site. The transmitter consisted of a FM ATV exciter—originally designed by Mike at his company, Microtek, for Part 15 license-free use—driving a homebrew 1-W amplifier.

*The ARRL Letter, 12/06/96*

### SETI League and AMSAT join forces

The SETI League Inc reports that AMSAT has approved its request for the two organizations to

## 25th ANNUAL MIDWINTER Ham Radio, Computer, Electronics

# SWAPFEST

## SUNDAY JANUARY 12, 1997 8:00 AM - 2:00 PM

### WAUKESHA COUNTY EXPO CENTER FORUM WAUKESHA, WISCONSIN

**ADMISSION: \$3.00 Advance - \$4.00 at Door**  
**RESERVED TABLES: \$4.00 per 4 foot table - \$5.00 at Door (if available)**  
**ELECTRICAL OUTLET: \$8.00 (if available)**  
**AMATEUR EXAMS: Bring your original license with you**  
**RESERVATION DEADLINE: Dec. 20, 1996 (early reservations suggested)**

**THE WEST ALLIS RADIO AMATEUR CLUB**  
Midwinter Swapfest • Wisconsin QSO Party • WARAC Memorial Scholarship

Advance Reservation Form  
\_\_\_\_ Admission Tickets at \$3.00 Each  
Note: table reservation does not include admission  
\_\_\_\_ Table Reservations at \$4.00 for each 4 feet  
\_\_\_\_ Electrical Outlet \$8.00 (if available)  
\_\_\_\_ Amateur Exam Information

NAME \_\_\_\_\_

STREET \_\_\_\_\_

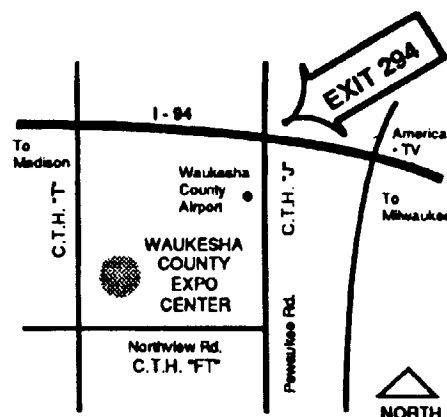
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE (\_\_\_\_) \_\_\_\_\_

Mail with business size S.A.S.E. to:

**WARAC SWAPFEST**  
**P. O. BOX 1072**  
**MILWAUKEE, WI 53201**

### Waukesha County Expo Center Location





# Silent Keys

George Cox, N9BCX, Two Rivers, WI, has passed away. He joined the Mancorad Radio Club April 8, 1958, and will be missed by fellow members.

G. DeBaker

affiliate. Each of the nonprofit educational and scientific organizations will become a member of the other, according to a plan endorsed by the SETI League board. The SETI League is involved in coordinating a privately funded search for extraterrestrial intelligence. "The benefit will initially be mostly ours," conceded SETI League Executive Director H. Paul Schuch, N6TX, in making the announcement.

AMSAT has some 7000 members compared to the SETI League's 400. Schuch expressed hopes that his organization can make technical contributions in the area of microwave communication, to further AMSAT's mission.

AMSAT Executive Vice President Keith Baker, KB1SF, said AMSAT and the SETI League "have a common purpose involving the world's radio amateurs in exploration, research and development."

--The SETI League

The ARRL Letter, 12/13/96

## Wisconsin ARES / RACES / Skywarn start email server

ARES/RACES/SKYWARN Wisconsin hams have an email server. Its address is:

scwi-hams@skywarn.cs.wisc.edu

The purpose of this email server is to facilitate communications of general interest to all ARES-/RACES/SkyWarn hams who have subscribed and as a means of alerting ARES/RACES/SkyWarn hams of emergencies, drill/tests/, exercises and SkyWarn. During emergencies this server would facilitate the establishment of HF/VHF/UHF and packet networks through the ability to send one message that would go to all hams on the server. This procedure would supplement organization telephone "trees", packet and HF/VHF/UHF voice alerts. All ARES/RACES/SkyWarn hams encouraged to add their email address to the server and relay this message to their acquaintances that belong to ARES/RACES/SKYWARN.

To add your email address to this server send an email message to

scwi-hams-request@skywarn.cs.wisc.edu

Be sure to place the word "subscribe" (without the quotes) by itself in the body of your message. You can leave the subject field blank.

Mack Brophy/N9NTB

## Prizes for your Hamfest

One-year subscriptions to Badger State Smoke Signals are available to give as prizes at your club or group's hamfest or swapfest. Send your request on your club or group's letterhead, at least eight weeks before the event, to Ken Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901.

## KWAD-KITZ

### FEATURING

- \* 2-element 6-meter Yagi
- \* 5-element 2-meter quad

YOUR VHF/UHF ANTENNA NEEDS

NEW! N4UAU's Super CW Station - Assembled

FOR INFO, CALL 1-414-208-1110  
E-MAIL: thetzel@excel.net

## ManCoRad Celebrates 50 Years

By Thomas H. Stinson, KB9GRC

The ManCoRad Club (Manitowoc County Radio Club) is celebrated its 50th Anniversary on December 10th of this year. The club was organized on December 10th, 1946.

It was organized by eight amateur radio operators; Ralph Klein, W9DKH, Manitowoc; Al Schmidt, K9DIN, Two Rivers; George "Bud" Woida, W9KQB, Manitowoc; George Honold, W9GI, Manitowoc; Bob King, W9-RKT, Valders; Russ Eggars, W9FMH, Bemidji, Minn.; Hubert Willis, W9TQV, Manitowoc; and Chuck Scholten W9BZU, Manitowoc.

In February of the following year the ManCoRad Radio Club was affiliated with the American Radio Relay League (ARRL). The Club incorporated itself on June 20th, 1954.

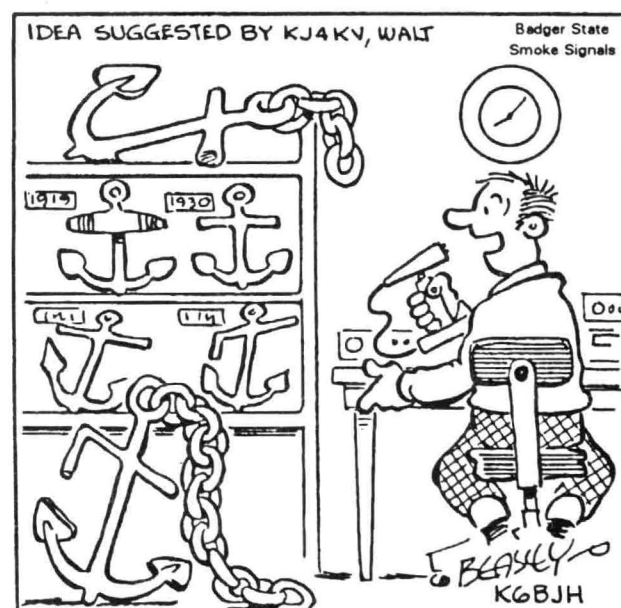
ManCoRad also includes in its membership the first licensed woman in Manitowoc County, Denise Beyer, N4WGG (formerly WN9OOR). She joined the club in late 1954.

Since December 10, 1946, starting with the original eight members, the club has grown over the 50 years to a club consisting of 87 members.

**Happy 50th, ManCoRad!**

## On the Lighter Side

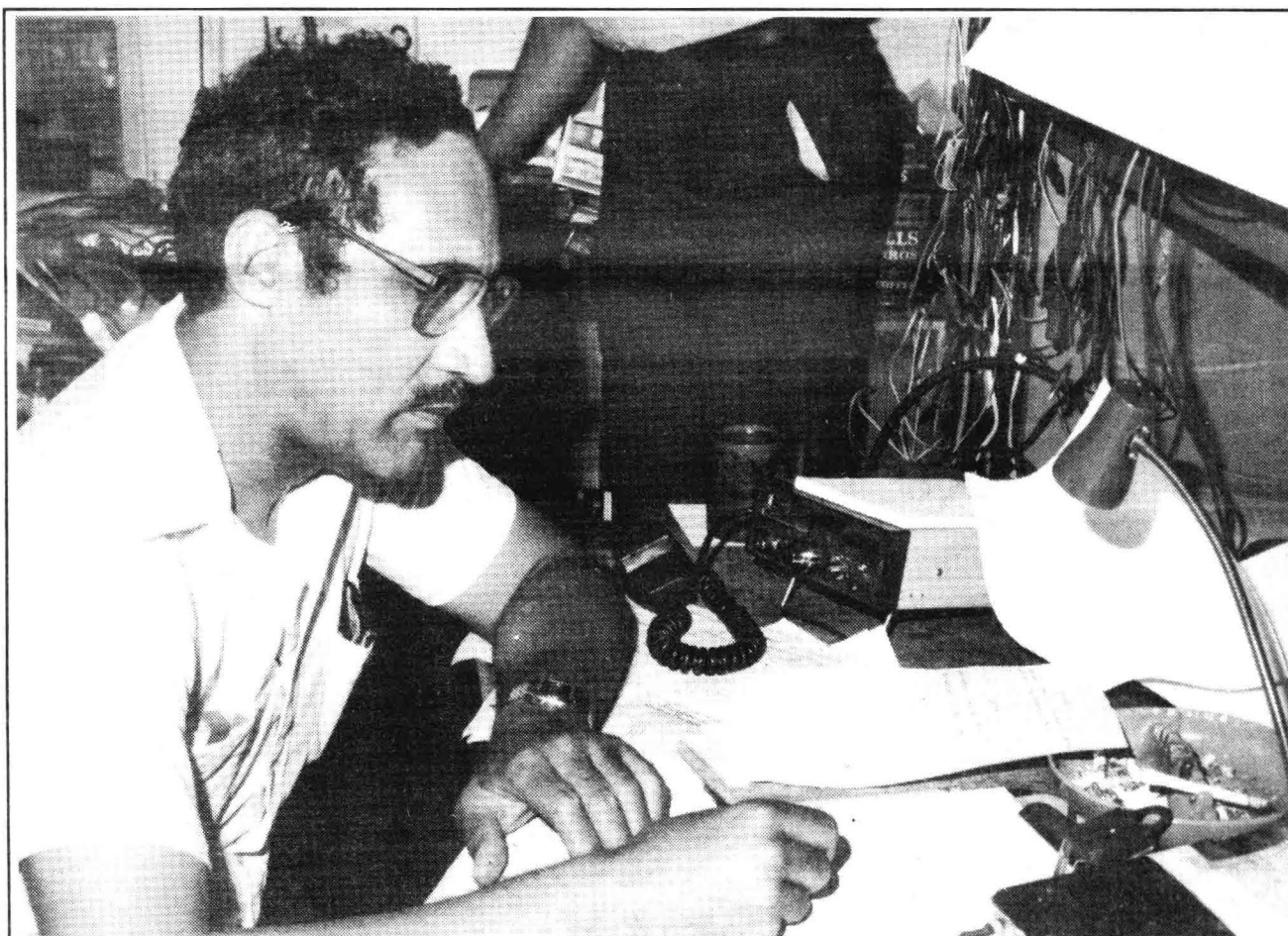
By Bob Beasley, K6BJH



## Ever had a red face?

Did you ever make a mistake on the air that was soooooo embarrassing that you went into a full blush? I have, and it was a doozy. Here's the deal: If at least six readers will share their biggest on-air boo-boo with all of us, I'll tell you what I did. Send your "oops" to K9ZZ, addresses on page 2. Let's have a little fun with this, eh?

## NCSing a Circus Parade



George Halper, W9SUF, West Allis, is a veteran of operating during public service activities. He has been net control station for many of the Milwaukee Great Circus Parades and other events there, and has done the same in Baraboo for a circus parade or two. Here he is at Jim Decker's (WB9UQT) doing NCS duty for an early 1980s parade. George was also very active in handling traffic in Navy-Marine Corps MARS in the 1960s and early 1970s, with the call sign NNNØZCC. Most of that traffic was handled on CW or RTTY. That's WB9UQT's tummy, arm and leg behind George. Jim's place is neater than mine, too!

Photo and history by Jim Romelfanger/K9ZZ

## BADGER STATE SMOKE SIGNALS

### Subscription Form • Regular Individual Subscription Rates

1 Year: \$12.00 • 2 Years: \$22.00 (save \$2.00) • 3 Years: \$32.00 (save \$4.00)

### PLEASE PRINT!

Name: \_\_\_\_\_ Call Sign (if any): \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP: \_\_\_\_\_

☐ 1 Year ☐ 2 Years ☐ 3 Years ☐ New ☐ Renewal

Send this form, with your check or money order, to Jim Decker, WB9UQT, Treasurer, P.O. Box 337, Baraboo, WI 53913-0337. Please do NOT send cash!

January 1997





# The Computer



By Stan Kaplan, WB9RQR

105 Martin Drive

Port Washington, WI 53074-9654

(414) 284-9346

WB9RQR @ N9PBY.EN63BI.WI.USA.NA

SKAPLAN @ POST.ITS.MCW.EDU

## No. 38: SPEED #3

### The Motherboard and Processor

So far, we've considered two things that have major impact on computer speed -- the data bus and the address bus. Now it is time to consider how the motherboard and CPU work together toward speed and efficiency.

The CPU (central processing unit), is the physical chip marked 286 or 386 or 486. It is definitely the most important chip in the computer; indeed, the motherboard is designed for it and built around it. Simple proof: one cannot successfully put a 386 chip in a 286 motherboard, or vice versa. It won't work because the motherboard was designed for a specific class of CPU. (An exception to this rule is the case of a few motherboards that are specifically designed to take more than one processor type, though only one at a time. For example, I have a motherboard that will accommodate either a 386 or 486 CPU).

Every motherboard has on it a crystal, which governs the clock speed of that board, in just the same way a crystal can govern the frequency of an amateur transmitter. Clock speed in a computer is also measured in megahertz. Now, lots of computer users try to compare the speed of different computers by just comparing the frequency ratings of the CPU.

"Gee", they say, "this 33 MHz 386 must be about half the speed of that 66 MHz Pentium." Not so. While the clock speed is definitely important as an indication of how fast the computer will do work, clock speed is not the only important factor. Another important factor is the efficiency of the CPU.

In a computer, a single cycle (one Hertz) is the smallest unit of time, and everything done by the CPU takes at least one, and often more than one, clock cycle. It takes 4 cycles for an XT chip (8086) to transmit data to and from memory. Added to these 4 cycles is a little more time, a couple of extra clock ticks, to make sure the CPU is not getting ahead of the other things going on in the computer. These extra clock ticks are called "wait states." A 286 CPU needs only 2 cycles plus wait states to transfer data to and from memory.

An even better way to evaluate the efficiency of a CPU is to consider how fast it can execute an instruction. Instructions are very fundamental pieces of computer work. An example is "take the number in memory register X and put it in memory register Y." Different CPUs are better at this than others; they can be said to be more efficient. The table below shows the average number of cycles it takes each class of CPU to complete an instruction.

CPU	Average Cycles Per Instruction
XT (8086/8088)	12
286/386	4.5
486	2
Pentium	1

Pentium is about equivalent to a 200 MHz 486 or a 450 MHz 386 or 286 or a 1200 MHz XT.

So you see, we have too darn many variables to make direct comparisons based on any single factor. Look at the list of stuff we have to deal with in trying to get a handle on factors that affect the speed of a computer:

### FACTORS WHICH INFLUENCE THE SPEED OF A COMPUTER (in alphabetical order)

1. Address bus width
2. Clock speed of CPU
3. Clock speed of motherboard
4. Data bus width
5. Instruction execution speed
6. Wait states

I've listed six factors and we haven't even considered factors extraneous to the CPU and motherboard, such as hard and floppy disk access time and video board speed.

So then, is it impossible to assess how fast a computer is? No, it may be difficult, but not impossible. The way it is done is to run a specific program that is designed to measure each of the above factors, or at least how they interact. The results of running the program (called a benchmark), is an arbitrary number that is compared with the number generated by running the same program on another computer. One such benchmark program is included in the Norton Utilities, a package of utility pro-

just ran the Norton benchmark program on the computer I am using to write this article -- a 486DX-66 MHz with a Cyrix (non-Intel) CPU. Here are the results:

CPU	CPU INDEX
Pentium 66	211
WB9RQR's 486-DX-66 MHz	113
486DX-33 MHz	71
386DX-33 MHz	36

That is a fairly good indicator of how my machine stacks up -- a little better than half the speed of a Pentium and about triple the speed of a 386. But, that is just the CPU speed. What effect does the hard drive have? Here is the answer:

CPU and Hard Drive	Computer INDEX
Pentium 66 + Western Digital	146
WB9RQR's 486DX-66 MHz + Quantum	75
486DX-33 MHz + Maxtor	51
386DX-33 MHz + Seagate	25

The numbers are quite different when combined

*Continued on page 8*

# ACTION AUCTION!

**February 25, 1997 • 7 P.M.**

**American Legion Post 53  
634 Water Street  
Eau Claire, Wisconsin**

**DOORS OPEN AT 6 P.M.**

**ADMISSION: \$3.00, OR PAID 1997 RCRA SUPPORT**

**Sell Your Gear • Mark all Items!  
Club Retains 10% of all sales**

**COFFEE AND SNACKS**

**Not responsible for any loss!**

**COL. BRUCE WALTHER, W9QAH, AUCTIONEER**

For more information, contact Steve Hart, KA9OMC  
E616 810th Avenue, Knapp, WI 54749  
(715) 665-2374

**TigerTail™**

- Easy to Use
- Unobtrusive
- Easily Concealed
- Snaps on Handheld
- Weighs only 1/3 oz.
- Adds No Bulk or Height

Range Extender for  
2 meter Handhelds

- Boosts Signal from Flex & 1/4 wave Antennas
- Lowers Radiation Angle
- Improves both Receive and Transmit
- Raises Low Power Performance
- Saves your Battery Pack

AntennasWest  
Box 50052-SB, Provo, UT 84605

Order Hotline  
800-926-7373

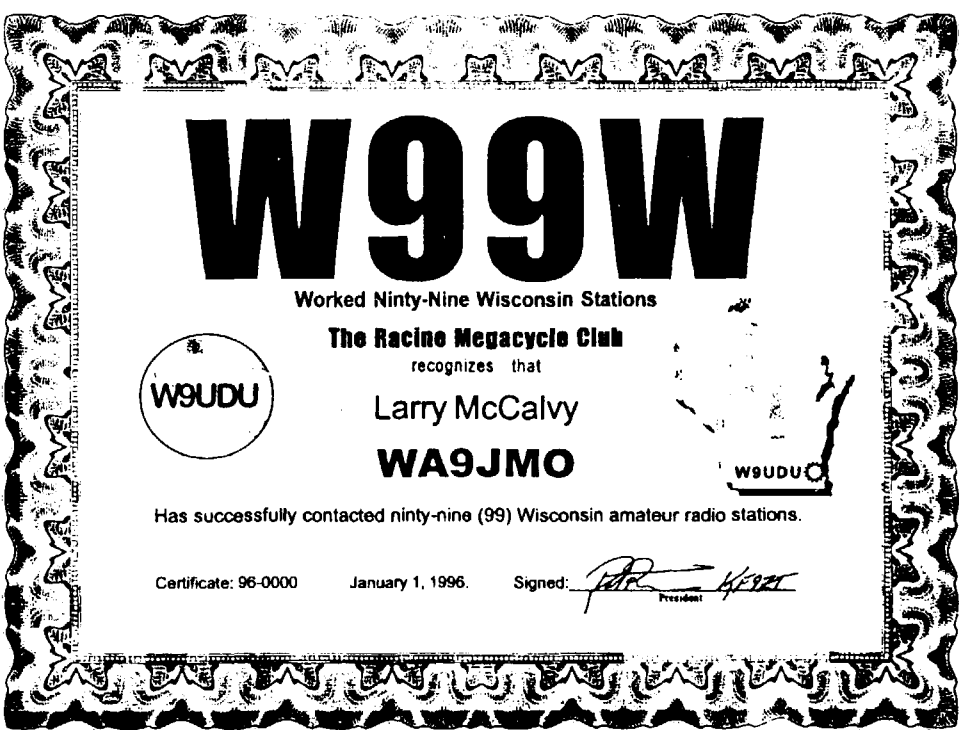
See and Hear the Difference

7.95  
per

<http://www.far.net/radioadventure>

# Worked Ninety-Nine Wisconsin Amateur Radio Stations Award Offered by Racine Megacycle Club

1. The Racine Megacycle Club will award any licensed Amateur Radio operator who has "worked" ninety-nine Wisconsin Amateur Radio stations a certificate attesting to that fact, without charge.
2. The radio contacts are to have been made on or after the first of January 1997.
3. The contacts can be made via (a) CW; (b) phone below 30 MHz; (c) phone above 50 MHz; (d) QRP; or (e) a mix of all. The color of the embossed seal affixed to the certificate will indicate the type(s) of contacts.
4. Individuals requesting a W99W certificate must send a list of the 99 contacts with the following information included:
  - a) Station contacted
  - 2) Operator's first name
  - 3) Operator's QTH (Wisconsin city, town, village, etc.)
  - d) Frequency of QSO
  - f) Time and date of QSO
  - g) Mode used (CW, FM, SSB, AM, etc.)
  - h) Power (QRP is limited to 5 watts or less)
5. All contacts are to have been without using a repeater.
6. The submitted list should be typed or very neatly printed. Send your completed list to: The Racine Megacycle Club, W9UDU, Attn: W99W, Box 3, Racine, WI 53401-0003.
7. Point of contact for clarification or additional details is Larry McCalvy, WA9JMO, telephone (414) 639-7327; FAX (414) 639-3320; or e-mail wa9jmo@wi.net
8. The Racine Megacycle Club will cover all expenses associated with this certificate program. Requesters only have to send the above information on their 99 Wisconsin contacts to the Racine Megacycle Club.



Larry McCalvy/WA9JMO

## IT'S PARTY TIME!

By Ken Secora, N9KS

On Sunday, March 9th, at high noon, one of the greatest short contests in the USA will be held. It is called the Wisconsin QSO Party. WIQP for short.

Every operator, Novice through Extra class, will find activity on almost every band and mode up through VHF and UHF. The idea of this contest is to make contacts with other hams in all the state counties as well as contacting all the other states.

Some will say, "I'm not a contester." That's OK. You can be a contester "helper". Just make a few contacts on 2 meter FM or any other band and you will have helped out another state station. The few contacts you make will add to the fun and you may be the only active station in that county.

There are many ways to enter the contest. You could be a single operator home station to a multi-operator multi-transmitter mobile. Check the entry form in the February issue of BSSS for details. There is a class for everyone.

Is your club better than another? Prove it. Get your club "on the air". The Kettle Moraine Radio Amateurs from Waukesha have won this event a few times with only eight or nine members participating. Can your club turn in a better score?

If you think it's a lot of fun operating from the home station, you should try doing it from the mobile. It is a combination road race and radio contest. Find a partner and start collecting those bonus points for making at least 15 contacts from each county you operate from that is not your home county.

If this is your first time contesting while mobile, choose the shortest route that covers as many counties as possible in 7 hours. Use 2 meter FM and move off the calling frequency of 146.52 to other simplex frequencies as often as you can. That gives other mobiles a chance to call too. Operate on as many bands as you can. Try 6 meters, FM and SSB.

When you call CQ, always give the county you are in ("CQ, this is N9EZ mobile in Brown county"). The other stations will know when you change counties and will call you.

As an example, the N9EZ/M with Jack and Ken, N9KS, (we switch calls every year) will start just west of Madison and drive to Grant county. That is a rare one for this contest. From there we will head north to La Crosse county. ANY station operating in the western part of the state will be in great demand. Chances are that we will not see or contact another mobile in that area. Translation: opportunity for other mobiles to score big from that area. From La Crosse, we will drive east to Waushara county and then head for home in Waukesha county. We should cover about 15 counties. That's 7,500 bonus points.

A few more suggestions for mobiles or portable stations. Use a separate log sheet for each county that you operate from. Keep the modes separate and use GMT times. Follow the rules on the entry form. Home stations, please listen and even ask if there are any mobiles calling you. You may be missing a county that you really need.

Stations that use computer logging should have the WAIUJU WIQP program. It can handle the mobiles as they change counties. Most other programs can not do this.

If you only operate one contest a year, this is the one to be in. Help out your ham radio friends and have fun doing it. Check the BSSS for the official entry form.

Copy it and hand it out to your friends and then ..... **LET'S PARTY!**  
Good Luck from Jack, N9EZ and Ken, N9KS. □

## The Computer Corner

Continued from page 7

with a hard drive typically used with each machine. A complicating factor is that this is just one benchmark, and there are many, AND you cannot compare results from one benchmark with the results from another. Oh well, no one ever claimed computers were simple!

Well, I hope that gives you some general ideas about computer speed. The underlying message is that while you cannot compare apples and oranges, at least you can be assured that a Pentium is faster than a 486, which is faster than a 386, which is faster than a 286, which is faster than an XT. Most of the time.

I mentioned previously that my friend Tom (WB9LNL) had requested that I write about computer speed. Well, Tom, you got a series of three articles.

I hope you found them informative. How about the rest of you gals and guys out there. Any requests? By the way, next month will bring an article on Windows 95! Happy computing.

- Stan

Reprinted, by permission, from the ORC Newsletter, Ozaukee Radio Club, P.O. Box 13, Port Washington, Wisconsin 53074 (Skip Douglas, KA9DDN, Editor). □

## FCC issued callsign update

The following is a list of the FCC's most recently issued call signs as of December 2, 1996.

District	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AB0DH	KI0FP	++	KB0ZBW
1	AA1QZ	KE1GK	N1YFL	KB1CAN
2	AB2CQ	KG2JG	++	KC2AIU
3	AA3PD	KE3YE	N3YKC	KB3BRF
4	AE4ZE	KT4YT	++	KF4NOG
5	AC5KN	KM5FH	++	KC5YCW
6	AC6YQ	KO6LA	++	KF6HQC
7	AB7TJ	KK7DJ	++	KC7TOB
8	AA8YS	KG8ZW	++	KC8FLH
9	AA9TO	KG9IQ	++	KB9PAM
N Marianas	NH0A	AH0AW	KH0FR	WH0ABF
Guam	#	AH2DC	KH2QY	WH2ANR
Hawaii	AH7J	AH6OW	KH7BY	WH6DCW
Amer Samoa	AH8O	AH8AH	KH8DC	WH8ABF
Alaska	#	AL7QT	KL0BX	WL7CTY
Virgin Is	WP2X	KP2CJ	NP2JO	WP2AIH
Puerto Rico	KP3V	KP3AN	NP3HY	WP4NMR

# New prefixes are available for this block, but none have been issued.  
++ All call signs in this group have been issued in this area.



# Working the MIR Space Station repeater

By Jim Naczek, KB9LTW  
1295 Honeysuckle Road, Hartford WI 53027

Have you heard of the MIR Repeater? If not, you're about to learn about an exciting mode of operation. Using a low power FM UHF transceiver, 10 to 25 watts, and a simple beam antenna on a TV-type rotator, you can work stations all across North America. It's fun, easy, and exciting.

Let's start our adventure with a little history. The MIR Space Station was launched in 1986 by the Soviet Union. It is the largest manned spacecraft in orbit. The space station has carried a 2 meter Packet station for a number of years. Earlier this year it was fitted with a 70cm station. This new equipment can be configured to operate in several modes. Currently it is configured as a FM repeater with a "foot print" that can cover half of North America!

Now for the hardware. You will need a 70cm FM transceiver that can transmit on 435.750 Mhz and receive on 437.950. You will also need a PL tone encoder set to 141.3 hertz. As for your antenna, I built a 5 element Quagi from plans in the *ARRL Antenna Handbook*. If you own a 70cm yagi beam, you're all set. My antenna is driven by an old TV antenna rotator. I do not have the ability to change the elevation or tilt of the antenna, but as you will see later, by selecting the proper pass, you can overcome this handicap. I also have a quarter wave ground plane for the "not so low" passes. To predict where the MIR space station will be at a given time, you will need a satellite tracking program. There are several programs available, and most will run on an IBM compatible 386 or better computer. Some of these programs are shareware that you can use for up to 30 days for evaluation. This will allow you to try it out and work a few MIR passes before you decide if you would like to purchase it. That's it! Of course, you will want your log book handy for when you start collecting those distant Grid Squares!

Let's set up our transceiver for LEO (Low Earth Orbit) operation. Because the MIR Space Station is traveling at over 17,000 miles per hour, we will have to deal with doppler shift. Doppler shift is the apparent change in a signal's frequency when the receiver and transmitter are moving at high speed either towards or away from each other. As the space station approaches us, the apparent receive frequency is higher. Conversely, as the space station travels away from us, the receive frequency is lower. This is similar to the sound of an approaching railroad train, the sound of the train has a higher pitch as the train moves towards us, as it passes, the pitch drops. This is doppler shift. The apparent frequency shift from the MIR repeater can be as much as +/- 10 KHz. To compensate for this, we will use a bank of 9 memory channels to program the doppler compensation. This will allow us to compensate for both receive and transmit doppler. Then as the space station approaches us, we will start at the low end of our doppler memory bank and move up through the preprogrammed channels to compensate for doppler shift. This allows for trouble free tuning during the excitement of the 10 minute pass. The following chart is your guide to the proper "Doppler Memory" programming.

	Downlink	Uplink	Offset
CH1	437.958	435.742	+ 2.216
CH2	437.956	435.744	+ 2.212
CH3	437.954	435.746	+ 2.208
CH4	437.952	435.748	+ 2.204
CH5	437.950	435.750	+ 2.200
CH6	437.948	435.752	+ 2.196
CH7	437.946	435.754	+ 2.192
CH8	437.944	435.756	+ 2.188
CH9	435.942	435.758	+ 2.184

Note: Be sure to program the 141.3 Hz PL tone on each memory channel.

The MIR Repeater has a input frequency of 435.750 MHz and the output is 437.950 MHz. Remember, the downlink frequency is your receive frequency and the uplink frequency is you transmit frequency. Because doppler compensation must be applied to both the receive and transmit frequency, the transmit frequency offset changes on each channel in the chart. The PL is 141.3 Hz and



Russia's MIR Space Station as seen from a U.S. Space Shuttle mission.

NASA PHOTO

remains constant.

OK, we're all set, but where is the space station? Well, now you will need to locate a satellite tracking program. I use a program called PC Track written by Thomas C. Johnson. Another popular program is STS Plus from David H. Ransom. If you prefer a Windows tracking program, look into WinOrbit by C. D. Gregory. All of these programs are available on the Internet or in the shareware software racks at your local ham swapfest. You will need to update the orbital elements or "Keps" to allow the software to locate the space station. These Keps are calculated by NORAD twice a week and distributed as a text file available on the Internet or on your local full service packet BBS. You should try to update your keps at least every week or so. The MIR Space Station is big and orbits relatively low, so the effects of atmospheric drag will slightly change the orbit of the big bird. This change in the orbit will cause your antenna pointing to be off slightly as the keps "age". Every once in a while, the cosmonauts fire the ship's engines to boost it to a higher orbit. These changes in the orbit will cause the space station to "show up" late as predicted by your program. But don't worry, the next set of keps will put your program back on track.

Here is how I typically work a MIR pass. First, I run a summary of the days passes on my tracking program. I then review the passes. There are usually 5 or 6 passes in a given 24 hour period. I look for the passes that have the Space Station stay below say, 20 degrees. This keeps the signal level up from my fixed elevation antenna. I have tried to work the higher elevation passes with my quarter wave ground plane antenna, but the signal is noisy and full of drop outs. Once I have selected a pass, I will aim my antenna towards the point of AOS (Acquisition of Signal) and select the first the doppler memory channel. Then as the spacecraft rises above the horizon you may here a QSO in progress from some West coast stations! If so, wait your turn, and transmit your call sign. You will probably get a reply soon after! QSOs tend to be short, since this is a shared resource for the entire country and a maximum-duration pass is only ten minutes long! If you don't hear any stations as the satellite approaches, key up and give your call sign. You should hear a squelch tail afterwards, from over 1200 miles! As the pass continues you will have to start moving up your doppler memory channels to compensate for doppler shift. Use your center tuning meter or listen for the best signal if you don't have a center meter on your rig. One more thing, watch your antenna position, you will want to rotate it to keep it pointed at the spacecraft during the pass. Use the real time azimuth information from your tracking program. That's it, keep your log book handy! The action is fast and exciting! The late night passes are much less populated. At times you might only hear your squelch tail! Prime time evening and weekend passes are more crowded but there is always a moment or two to get in and make a contact. Good luck and enjoy the MIR Repeater.

Please send your questions or comments to:

KB9LTW @ N9PBY.EN63BI.WI.USA.NA

I'll be listening for you!



## Foundation for Amateur Radio announces 1997-1998 scholarships

### Two Wisconsin clubs among donors

The Foundation for Amateur Radio, Inc., will be administering sixty scholarships for the coming academic year, ranging from \$500 to \$2500 each. Unless otherwise indicated, all licensed Amateurs meeting the specific requirements may compete for the awards if they are now enrolled or have been accepted for enrollment in an accredited university, college, or technical school to pursue a full-time course of studies.



The scholarships funded by Wisconsin clubs are listed below. However, prospective applicants are encouraged to apply for others for which they may be eligible. Send for the information as directed.

### West Allis Amateur Radio Club

The three (3) WARAC Memorial Scholarships are sponsored by the West Allis Radio Amateur Club of Milwaukee. The awards are \$1000 each. Applicants must hold an Amateur Radio license, be residents of the state of Wisconsin, and plan to attend a school in Wisconsin, pursuing at least an Associate degree. Those seeking graduate degrees are also eligible.

### South Milwaukee Amateur Radio Club

The four (4) SMARC Scholarships pay \$500 each. Applicants must hold an Amateur Radio license and intend to seek an Associate or baccalaureate degree in Electrical Engineering or technology from a college or university in the U.S. They may reside in Wisconsin, Illinois, or Indiana, with preference given to Wisconsin residents.

For complete information and an application form, write FAR Scholarships, 6903 Rhode Island Avenue, College Park, MD 20740.

# PARTICIPATING CLUBS AND ORGANIZATIONS

## Wisconsin Valley Radio Association

Paul Neubauer, N9IOG, Secretary

P.O. Box 363 • Wausau, WI 54402

**Six Meter Repeater: 51.74 Input/51.24 Output**

### MEETING MINUTES December 3, 1996

The meeting was called to order at 7:30 p.m. Present were: KB9OPP, N9MEA, N9NMH, N9SDI, N9LIA, KB9OPN, WB9LIA, K9BX, N9PHC, N9NRC, KB9FRB, KB9DZG, KB9MCZ, N9TTA, KB9DED, N9IAB, N9SDL. The meeting minutes from the November meeting were read. It was moved by KB9DZG and 2nd by N9TTA to approve them as read. The treasurer's report was given by N9IAB. It was by KB9DED and 2nd by N9LIA to approve the treasurer's report. Both were passed by members present.

Upcoming events were discussed including the Special Olympics to be held Jan. 25-26 with Jack, N9LIA looking for communications volunteers. Also discussed was the Badger State Winter Games to be held Feb. 1-2 with Mike, N9IAB looking for communications volunteers. Hams and Eggs for Breakfast was mentioned for Sat. Dec. 7.

Old business covered two topics that we are waiting for a response, those being the club's tax exempt status and the club's 6M repeater frequency pair.

The club will subscribe to the RAIN Report and get a monthly tape for airing on the Wed night 146.64 net at 8:00. Mike, N9IAB will be the primary presenter and Phil, KB9DZG will be the backup for the RAIN Report.

New business included discussion of participating in the Christmas Parade in Wausau next year.

Mike, N9IAB will be making arrangements this week to pick up a telescopic antenna mast that is being donated by a local TV station.

We also discussed the possibility of renting a buss to go to the Madison Ham Fest in April. We need at least 15 to spread out the expense. Interested hams should let Jim, N9SDI know.

The meeting was adjourned at 8:10 with a motion from KB9DED and 2nd by N9TTA, followed by a demo of GPS devices.

The program for Jan. will be HF operations, including certificate hunting.

*Respectfully submitted,  
Kim Kunze, N9SDL  
Acting Secretary*

## Wisconsin Nets Association Ltd.

Jim Merrill, W9AYK, Secretary • W283 Hillendale Drive  
Oconomowoc, WI 53066

## WISCONSIN NETS

Net	WNA	Freq.	UTC	CDT	Mgr.
BWN	Yes	3985	1100	0600	W9AYK
BEN	Yes	3985	1700	1200	KE9VU
WSBN	Yes	3985	2230	1730	K9UTQ
WNN	Yes	3723	2300	1800	N9MXW
WSSN	Yes	3645	2330	1830	N9BDL
WIN/E	Yes	3662	0000	1900	WB9ICH
WIN/L	Yes	3662	0300	2200	W9UW
NWTN	Yes	34/94	2330	1830	NS9Q

(Rhinelander area)

RCRA	No	01/61 (Mondays CST)	2330 (Menomonie Area)	1830	KA9OMC
------	----	------------------------	--------------------------	------	--------

Gr. Bay	No	72/12 (Green Bay Area)	0145	2045	WB9NRK
---------	----	---------------------------	------	------	--------

ARES	No	4.65/5.25 (South East/South Central Wisconsin)	0100	2000	
------	----	---	------	------	--

RACES	No	3993.5 (LSB Sunday)	1300	0800	WA9OAY
-------	----	------------------------	------	------	--------

### WISCONSIN NTS TRAFFIC REPORT November 1996

Checkins and traffic are both down in November. Conditions are terrible on the Weather net until almost 7 am. A big tip of the hat to Bill Posson, AA0OM, and Donnie, N9TMI, for their help with the Badger Weather Net. Without their relays, the weather net would have great difficulty in passing traffic. The net managers on all of the evening nets are reporting bad conditions and difficulty in passing traffic.

Jim Merrill, W9AYK, BWN N/M, is still in the hospital in Waukesha. He hopes to be home by Christmas.

With six out of eight nets reporting, 3263 stations passed 2608 pieces of traffic in November. Badger Weather Net delegate W9IHW reported 1748 stations and 2284 messages. Badger Emergency Net NM KE9VU reported 709 stations and 173 messages. No report was received from Wisconsin Sideband Net NM K9UTQ. No

report was received from Wisconsin Novice Net MN N9MXW. Wisconsin Slow Speed Net NM N9BDL reported 259 stations and 15 messages. Wisconsin Interstate Net/Early NM WB9ICH reported 238 stations and 72 messages. Wisconsin Interstate Net/Late NM W9UW reported 181 stations and 35 messages. Northwoods Traffic Net NM NS9Q reported 128 stations and 29 messages passed.

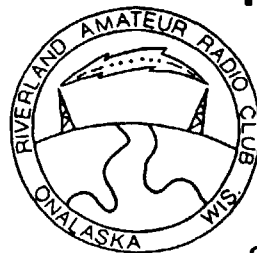
In November, nine stations had traffic totals in excess of 100, three of whom made Brass Pounders League. The stations are: WB9JSW/1887 (BPL), W9IHW/1641 (BPL), AA0OM/677 (BPL), W9CBE/426, K9FHI/305, K9DHR/301, N9TMI/256, W9YCV/156, and N9BDL/129.

Twenty nine stations submitted Station Activity reports, and eleven stations submitted Public Service Honor Roll reports.

I mail my reports to League Headquarters on the 7th of the month. That

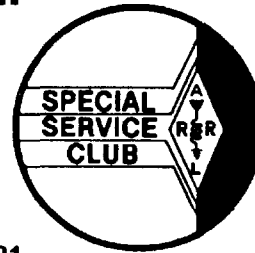
*Continued on page 11*

## Riverland Amateur Radio Club



Dan Abts, N9PZC  
Secretary

Club mail address: P.O. Box 621  
Onalaska, WI 54650



### MEETING MINUTES December 3, 1996

The December meeting of the Riverland Amateur Radio Club was called to order at 7:02 p.m. on December 5, 1996 by President Duane, W9HWQ. There were 18 people in attendance.

The minutes of the November meeting were accepted as read by Dan, N9PZC.

The treasurer's report was accepted as read by Roger, KA9BKK. We have 72 paid members.

Programs: There is no program for tonight because we have the election of club officers.

The program for January's meeting is a miniswapfest with part of the proceeds going to the club.

444.475 Repeater: Dan, N9PZC, reported that the phone line was installed at the 440 repeater site. The phone numbers for the autodial slots have been entered. Others wishing an autodial number should contact Dan or someone else on the 440 repeater committee.

Net Manager: Pete, N9XVG, reported that the Sunday Night Net has been held regularly with between 15 and 20 check-ins. He encouraged new people to sign-up to give net control a try.

ARES/Skywarn: Kent, W9LZQ, said there was nothing new to report.

146.97 Property Manager: Bob, N9LZK, had nothing new to report.

Repeater: Walt, AA9AW, said there was nothing new to report.

Field Day: Bill, KE9XQ, was not present.

VE: Bill, KE9XQ, was not present but

*Respectfully submitted:  
Dan, N9PZC*

others who were present at the test session on November 30th reported that ten people took tests and seven tests were passed.

### Old Business

Kent, W9LZQ, is still looking for the 220 control transmitters we had years ago. They were built in a small black box with a keypad and a quarter wave vertical antenna.

### New Business

WO0W made a motion to prepare a program to hold Amateur Radio Weekend in fall 1997. The motion was seconded and passed.

A committee was formed to organize no-code technician classes to start in January or February. Roger, KA9BKK, will chair the committee.

Duane, W9HWQ, was reelected president of the club. Bob, N9LZK, was reelected vice president. Roger, KA9BKK, was reelected treasurer. Dan, N9PZC, was reelected secretary.

Red, WO0W, made a motion to keep dues at \$20 for an individual membership and \$25 for a family membership for 1997. Frank, KB9LAB, seconded the motion and it passed.

A motion was made at 8:10 p.m. by Kent, W9LZQ, to adjourn the meeting. The motion was seconded by Bob, N9LZK, and passed.

## Quarter Century Wireless Association Southeastern Wisconsin Chapter 162

Larry McCalvy, WA9JMO  
5400 Six Mile Road  
Racine, WI 53402



Our January meeting will be held at the South Port Restaurant in Kenosha (I hope; final arrangements have not been confirmed at this writing), on Monday, the 20th beginning at 7:30 pm. Hot topics should include, nominations for the Olie Fox, K9AKG, Award of Excellences in Amateur Radio, nominations for Certificates of Meritorious Service and Appreciation. All awards presentations will take place at the Annual Greater Southeastern Wisconsin Ham Banquet scheduled for Saturday, the 8th of March 1997. Details for the latter event are still hazy, but should be hammered out early this month.

Nominating qualification for the above awards are as follows: The Olie Fox Award is open to any Amateur Radio Operator living in the Greater Southeastern Wisconsin area -- this includes Northeastern Illinois, that had been first licensed at least 25-years prior to receiving the award. The nominee should have contributed significantly to Amateur Radio and to his or her community. Submit the name of your candidate, Ham call and your reasons for the selection in writing. Please be as detailed as you can be in setting down the specifics leading up to your nomination(s). Send your written nominations to the Olie Fox selection committee. If you do not know who they are, sent the paper work to me, marking on the outside of the envelop "Olie Fox, K9AKG nomination", and I will forward the seal document to the committee.

Nominations for Certificates of Meritorious Service and Appreciation are also open to the same geographic area, and the same criteria, without restriction on the time period of amateur licensing.

Send a similar type of nominating structure listing in great written detail, the reasons for the selection, to me at the address listed below.

Another topic of interest will be QRP operation during the 1997 ARRL Field Day. We can discuss the meeting dates and locations for the balance of year plus any other great ideas our members are struck with!

Beginning on Sunday, the 19th of January 1997, the Racine Megacycle Club will be hosting a 12-week codeless Tech Ham class at the Racine Red Cross building, 4721 West Taylor Avenue, in Racine, from 6:30 to 8:30 p.m. I will be the point of contact for the class, and I am looking for instructors as well as students. We will utilize the *Now You're Talking* book.

Our weekly net meets on Thursdays at 9 p.m. on the Lakeshore Repeater, 147.270 MHz, where listeners can pick up a bit of levity from Spence Clope, W9LDH, as he enlightens us with words of humor.

Point of contact is Larry McCalvy, WA9JMO, 5400 Six Mile Road, Racine, WI 53402, for the written word; (414) 639-3320 for FAX communication; and/or

*Continued on page 11*





# **E.C.A.R.C.** **Eau Claire** **AMATEUR RADIO CLUB**

Carl Searing, W9NW, Secretary  
1129 McKinley Rd. • Eau Claire, WI 54703  
<http://www.edp.net/~mceraso/ECARC.html>

The Club's annual Christmas party was held on this date, and, as usual, no formal meeting took place. The only activity that could be construed as "formal" was the counting of ballots for the yearly election of officers. The results:

President: Kevin Zehr, N9OHE  
Vice-President: Bert Spangler, W9ZZI  
Secretary: Carl Searing, W9NW  
Treasurer: Jim Staatz, WB9RBP

Otherwise, activities were most informal, with a dish-to-pass meal (ham and buns furnished by the club), beautiful decorations (many thanks to Carol Ceraso, N9TUA and the decorating committee), and a bagpipe serenade nicely performed

by Lois Riley. A visit from St. Nick capped the event with the disbursement of gifts for everyone, with some left over for next year. It was noted that St. Nick's voice sounded a bit like that of N9OHE.

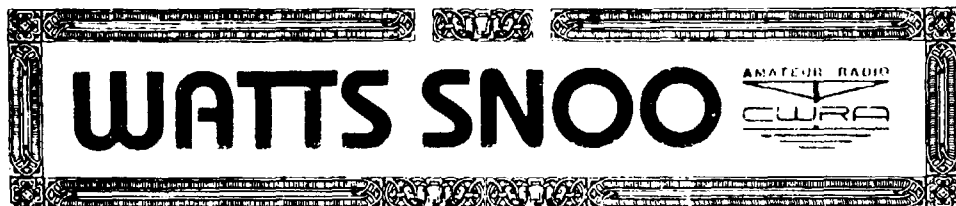
A hearty round of applause (and a gift) went to Nolene Harlson, N9MNA, who purchased gifts throughout the year for this party, which was attended by a record turnout of 57, including members and their families.

The Eau Claire Amateur Radio Club would like to wish everyone the best of Season's Greetings, along with Best Wishes to all for the new year.

W9NW, Secretary

OFFICIAL PUBLICATION OF CENTRAL WISCONSIN RADIO AMATEURS, LTD.

At University of Wisconsin, Stevens Point



WB9QFW 2-Meter Repeater 146.07-.67 and Club Station

P. O. Box 923 • Plover, WI 54467

## Meeting Minutes December 12, 1996

President Mary Eiden, KA9FAS, called the meeting to order at 7:30 PM.

This month's program was an ARRL videotape titled "When Disaster Strikes" given by Mike Pagel, KA9LAQ. It was a very informative program.

The secretary's report was, as announced by Secretary Mike Eiden, WD9JID, in the *Badger State Smoke Signals*. Our Treasurer, Joe Larson, N9JW, read the treasurer's report. Both the minutes and the treasurer's report were approved as read.

Mike Pagel, KA9LAQ, reported that both repeaters are working fine and did not have anything to report. He also reported the program for February's meeting might be something on ham shack ergonomics.

Art Wysocki, N9BCA, reported that the banquet is proceeding well. The invitations will be mailed out soon by the Secretary. The date of the Banquet is January 8, 1997. Happy Hour starts at 5:00 PM and dinner is at 6:00 PM.

Joe Larson, N9JW, reported that the classes were completed and that 4 people completed the class. 3 people passed the exams. Congratulations!

He also stated that because of the InterNet, they were able to look up their call signs and able to get on the air almost immediately. A round of applause was given to Joe for all his efforts for putting on the classes. Thank you Joe!

He also stated that unless he gets a bigger turnout, say 10 people, and with the dropout rate, it would not be right for just 1 person, so if only a few show up he may not hold the class.

Mary Eiden, KA9FAS, reported that the current membership list is done and has been distributed. The list of Portage County hams is being worked on and will

be done soon.

John Feltz, WA9LWJ, reported the swap-fest committee will go and get the keys and look the buildings over and will also get the information out to the dealers by January. He said that they are going to have a meeting this month about it.

Mike Pagel, KA9LAQ, reported they if all goes according to schedule, Lot D will be open next semester, which would be February. The construction there is almost completed.

John Feltz, WA9LWJ, reported that the trailer for Field Day is at Ray Dix's house. Ray, KF9BG, told John that some modifications are needed on the trailer. One would be to help make the trailer level. It needs some crank up type of trailer jacks. Either two or four would be needed. Also needed is to modify the electrical panel. John stated that we should get this done. Art Wysocki, N9BCA, said we should check on prices and discuss it at the next meeting. John said he would check into it. He also reported that the 2 meter FM beam antenna that the club has is tuned for the FM portion. He said that there is a Cushcraft 13B2 beam antenna, about a year and a half old, tuned for 2M SSB, and also there is 75 feet of cable by Comet. John said that it was for sale and that it should be in our club inventory. A motion was made to purchase the beam antenna and the cable. Motion passed. John will pick them up.

Mary Eiden, KA9FAS, asked if someone who lives in Plover would stop and pick up the club mail. It was mentioned that Bob Baird, W9NN, since that he goes there everyday, could possibly pick it up. So Bob will be asked if he will pick it up for the club. She also had a letter from the Foundation for Amateur Radio, Inc. (Full info is in this issue of *BSSS*.) This is about scholarships for licensed Radio Amateurs. Joe Larson, N9JW, took the information.

Mike Pagel, KA9LAQ, was wondering

## Mancorad Radio Club

Dave Shemchak, KB9KQA,  
Secretary

P.O. Box 204 • Manitowoc, WI  
54221-0204

**2-Meter Repeater: 146.01 Input/146.61 Output**



## Meeting Minutes December 11, 1996

The December ManCoRad Club meeting was called to order by new President Janice, N9IQZ, (first woman president in club history) at 1935 hrs.

The minutes of the November meeting were approved as printed in the "Badger State Smoke Signals." Motion to approve by Glenn, AA9MT, seconded by Red, N9GHE.

The Treasurer's report as read by Glenn, AA9MT, was approved. Motion made by Bob, KB9INK, and seconded by Bill, KB9DUX.

The annual ManCoRad Christmas party will be held at Cedar Ridge Restaurant (Maribel exit from I-43) on Friday, January 17th, 1997. Cocktails from 5:30 to 6:30 with the meal at 6:30. The menu this year will be Chicken and BBQ Ribs and the cost will be \$9.00 per person. Reservations must be paid to Glenn, AA9MT, by January 10th, 1997! All are welcome to join us for a good time!

Thanks to Tom, KB9GRC, for writing a short essay on the history of the ManCoRad club! Thanks also goes to Roger, W9NPX, and Hubert, W9TQV, for their assistance to Tom. Hubert, one of the original founding members, along with Chuck, W9BZU, are current members of ManCoRad.

Any members going to area Hamfests are asked to contact Glenn. He will give you a stack of our Hamfest flyers to take along.

Ron, WS9X, proposed that the club make a one time donation to both Red, N9GHE, and John, NZ9Z, in support of their Packet operations. Red operates and maintains a local node, and backbone link (among other things). John maintains a DX cluster link. Ron feels that Packet is a valuable resource. System operators spend a lot of time and money in building, maintaining, repairing, and upgrading their systems (which we all use). Therefore, Ron feels that our club, all clubs if possible, should support local sysops in the maintenance of their systems to preserve our Packet resource. Motion for approval by Ken, WB9OBX. Seconded by Carl, KA9ZTF.

Gifts totaling \$220.00 were recieved from the estate of George Cox, W0OBB, (ex-N9BCX). Red, N9GHE, made a motion to purchase ARRL Technician and General Class instructional videos for the club in George's name. Seconded by Bob, KB9INK.

Ron, WS9X, and Janice, N9IQZ, recently held an open house to sell George

Cox's Amateur Radio equipment on behalf of the family. Most items were sold, however there are a few items left. Anybody interested should contact Ron or Janice.

Janice, N9IQZ, asked for volunteers to coordinate the following activities:

- Novice/Technician Classes
- Field Day
- Sub Event (our annual Special Event Station)
- Ham Fest

Myself, KB9KQA, along with Carl, KA9ZTF, and Dick, N9QFY, volunteered to handle the classes. Steve, N9PBL, is expecting a Harmonic in January and has volunteered to help in the kitchen during our Ham Fest instead of helping with classes this year.

Ron, WS9X, reported on the new "free" E-mail system available from Juno. As this is a free system, members are asked to make copies of the software (it is self installing) and pass it along to other interested parties. Ron explained the system requirements and left copies on disk for anybody who was interested.

Dick, N9QFY, volunteered to organize the Club Shack and Janice, N9IQZ, volunteered to deal with the "glacier" in the refrigerator. Any other help would be appreciated!

Membership cards will again be issued to current members starting in January.

Red, N9GHE, made a motion to adjourn seconded by Ken, K9HAG. Meeting was adjourned at 2005 hrs.

Submitted for approval  
Dave Shemchak, KB9KQA, Secretary

## Meeting Attendance

Glenn	AA9MT
Janice	N9IQZ
Dave	KB9KQA
Tom	KB9IJR
Don	KB9NTL
Tom	KN9GRC
Dick	N9QFY
Bob	KN9INK
Red	N9GHE
Ron	WS9X
Conrad	WD9ERM
Ken	K9HAG
Denise	N4WGW
Roger	W9NPX
Ken	WB9OBX
Fred	W6BSF
Bill	K9DUX
Paul	N9QFX
Carl	KA9ZTF
Mary	KB9GOY
Bill	N9XEZ

why some of the hams listed in the membership list did not have phone numbers. It was determined that possibly some of the members have unlisted numbers or did not want their phone numbers listed.

John Feltz, WA9LWJ, asked if there could be an Advanced Class. After a brief discussion it was decided that there should be a get together to plan for a class. It was decided that the group get together on January 22, 1997 at 7:30 PM. at Mike Pagel's office in the Old Main building to plan for a class. Jerry Fadness, W9GF, said he would help teach the class. Books will be needed. A motion was made for the club to pick up the books. Motion

passed.

The meeting was adjourned at 8:36 PM.

Next month is the Annual Banquet on January 8, 1997 at Michelle's Restaurant, so there will be no regular meeting.

## Attendance

Mike Eiden	WD9JID
Mary Eiden	KA9FAS
Joe Larson	N9JW
David Tamres	KB9IIF
Roger Kanieski	N9RK
Al Mallek	N9WBS
John Feltz	WA9LWJ
Art Wysocki	N9BCA
Gordon Miller	KE9IA
Jerry Fadness	W9GF
Mike Pagel	KA9LAQ

Respectfully submitted  
Mike Eiden, WD9JID  
CWRA Secretary

Hamfest sponsors are reminded that it is YOUR responsibility to notify BSSS of changes to be made in your ad if or when needed, such as the date for the next event. Ad Changes go to K9ZZ. Swapfest Column changes go to K9EN.

## QCWA Southeastern Wisconsin Chapter 162

Continued from page 10

wa9jmo@wi.net for speedy electronic information.

The world of Amateur Radio, our Chapter, the Racine Megacycle Club and Packet Radio family has lost a very dear friend. On the morning of November 26th, Bruce Zabler, K9RRS, became a Silent Key. He will be missed!

73, Larry McCalvy, WA9JMO

## Wisconsin Nets Association Ltd

Continued from page 10

makes the deadline for reports the 6th. I can accept reports until I start printing them up for mailing. If you can catch me on the BWN on the morning of the 7th all would be well.

Hale Blakely, W9CBE, Asst. STM will also accept reports and forward them to me. Hale covers most of the CW and SSB nets so there is someone on almost every net to take reports.


Reports can also be sent VIA packet or e-mail.

My packet address is:  
KA9KLZ @ NX9V.WI.USA.NOAM

My e-mail address is:  
aevans@mhtc.net

Thanks to all stations who participate in the Wisconsin nets. You are the nets and Wisconsin nets are the best. 73

Submitted by:  
Arthur A. Evans, KA9KLZ  
Wisconsin Section Traffic Manager  
December 11, 1996




## Washington County Amateur Radio Club

**Tom Waldschmidt, N9LZW,**  
Secretary  
465 Elder Lane  
Allenton, WI 53002-9799

**Club Repeater: 146.73 MHz**

<http://www.nconnect.net/~WCARC>



### MEETING MINUTES December 12, 1996

The December 12, 1996 membership meeting of the Washington County ARC was called to order at 7:36 P.M. by President Walt Gossfeld, N9LLS. There were 14 members attending.

The minutes of the November 14th meeting were read by Secretary Tom, N9LZW. There was a motion by Rip, W9SIZ, seconded by Bill, N9IBU, to approve the minutes. Motion carried.

The Financial Report was read by Treasurer Dave, KA9RNU. There was a motion by Don, K9GR, seconded by Chris, N9ZES, to accept the Financial Report. Motion carried.

### ARES REPORT

Walt, N9LLS, reported that an ARES meeting was held prior to the club meeting. It was proposed that a joint exercise with OZARES be arranged. Members also discussed using a long-tone zero when calling up the net.

### REPEATER COMMITTEE REPORT

Don, K9GR, explained that he has

plans to check the audio and tweak the duplexer. He also said that a temporary capacitor that was installed when one of the power supply capacitors went bad and needs to be changed out with a permanent replacement. The club also could use a backup power supply for the repeater.

Brian, N9LOO, questioned if there were plans to install PL on the repeater. Don said that we expect to put PL on the transmit only, at this time, and that we just need to get the proper PL installed. He said that WAR is decreasing the spacing between repeaters making the use of PL more important. Gary, W9XT, offered to help Don by picking up the needed parts. Walt, N9LLS, has also offered his help whenever needed.

### OLD BUSINESS

#### Nominating Committee

Walt asked how the nominating committee was coming along. Ed, KB9NKC, said he was out of town for 3 weeks and believed Larry, WB9BVB, had made some contacts. Tom, N9LZW, said he was contacted by Larry and he agreed to accept a nomination for club secretary.

### Annual Banquet

Dave, KA9RNU, said that he had placed a deposit with Heidel's and that the lower banquet room was reserved for us. After a discussion, Dave, KA9RNU, moved to have the club pay for the cost of hiring a bartender for 2 hours, from 6 to 8 p.m. out of the club treasury at a cost of \$12.00 per hour. Motion was seconded by Brian, KB9NLF, and approved by the membership.

Dave, KA9RNU, handed out dinner reservation forms to those present prior to the meeting. The cost of the dinner, including gratuity, is \$13.00 per person. The family style menu includes: Lightly breaded chicken, Barbecued Ribs, Mashed potatoes, Candied carrots, Lettuce salad, and dessert. There will be a social hour from 6 to 7 p.m. in the lower bar with the dinner following at 7 p.m.

Don, K9GR, moved to authorize postage for the mailing of dinner notices to those members who were not present at the meeting. Motion was seconded by Walt, N9LLS, and approved by the membership.

### NEW BUSINESS

Don, K9GR, announced that his company was interested in hiring hardware and software technicians. Anyone who is interested can contact Don for more information.

Brian, N9LOO, asked that when a new program director is found, that he be provided with advance information for the club's WEB page. Dave, KA9RNU, suggested setting up a WEB page as a topic for one of our programs.

Brian, N9LOO, also recommended that the club develop an 'Elmer list' of those people that others can contact who have expertise in certain areas.

Gary, W9XT, said that he will be

bringing the CQ magazine tape on contesting to be shown after the annual meeting in January.

Gary, W9XT, moved to hold the Homebrew contest after the May meeting and that it follow the same rules as last year with one-year memberships offered as prizes. Motion was seconded by Don, K9GR, and approved by the membership.

Bill, N9IBU, moved to adjourn the meeting. Motion seconded by Brian, KB9NLF and approved by membership. Meeting adjourned at 8:12 p.m.

*Respectfully submitted:*  
Tom, N9LZW, Secretary

Following the meeting, Don, K9GR, invited members to a discussion regarding the repeater and members enjoyed a variety of holiday treats baked by Tootie, N9OOY.

### Breakfast and Event Calendar

- 01/02/97, 7:30 p.m., Net on 146.730 repeater
- 01/04/97, 9:00 a.m., Breakfast, Mineshaft in Hartford
- 01/09/97, 7:00 p.m., ARES meeting
- 01/09/97, 7:30 p.m., WCARC Annual Meeting and Contesting video
- 01/11/97, 9:00 a.m., Breakfast, Slinger Inn in Slinger
- 01/16/97, 7:30 p.m., Net on 146.730 repeater
- 01/18/97, 9:00 a.m., Breakfast, Jimmy's Restaurant in Jackson
- 01/23/97, 7:30 p.m., Net on 146.730 repeater
- 01/25/97, 9:00 a.m., Breakfast, Woodside Cafe in West Bend
- 01/30/97, 7:30 p.m., Net on 146.730 repeater □

## Taylor County Area Amateur Radio Club

Mike Schoenfuss, N9GHZ, Secretary

P. O. Box 401 • Abbotsford, WI 54405-0401

### MEETING ANNOUNCEMENT

The next regular meeting will be held on Thursday, January 2nd at 7 p.m. in the Emergency Government meeting room located in the basement of the sheriff's annex to the Taylor County Courthouse, corner of 2nd and Ogden Sts., Medford, WI. Talk-in on the 147.15 Medford repeater (+ 600 kHz) or 146.52 MHz simplex.

NOTE: Club secretary N9GHZ will NOT be able to attend this meeting. It is requested that someone in attendance record the meeting minutes and IMMEDIATELY mail them to N9GHZ, so that they can be typed up and submitted to *Badger State Smoke Signals* in time to make the publishing deadline. Thank you!

### MEETING AGENDA/PROGRAM

**IMPORTANT REMINDER: ELECTIONS FOR 1997 CLUB OFFICERS:** Just a reminder that elections for 1997 TCAARC club officers will be held at this meeting. The membership will need to elect at least one new officer this year, for the position of club secretary, which is being vacated by N9GHZ. It is EXTREMELY important to the future health and viability of this organization that it have a full slate of officers each year to conduct the organization's business in a timely manner. PLEASE make an effort to be in attendance at this meeting to help in this decision-making process. Also, give some thought to the possibility of maybe running for an office. The jobs are not all that bad!

**IMPORTANT REMINDER - CLUB DUES AND BSSS:** A reminder to all club members that it's time again to renew your club/repeater dues for 1997. If you're in doubt as to the status of your dues, please check the expiration date on your wallet membership card or check with the current club treasurer, KA9WDX. Dues are \$10.00 a year.

Also, it is time again to renew your subscription to *Badger State Smoke Signals*, through the club. ALL member subscriptions to BSSS, regardless of what time of the year they were started in, MUST be renewed through the club at the start of each year. The member's share of their subscription is \$5.00 a year, with the club paying the balance of the subscription rate.

Payments for club dues and BSSS subscriptions can be brought to a club meeting or mailed to the club treasurer (to be elected at the January club meeting). Make checks payable to: Taylor County Area Amateur Radio Club. Any current member who does NOT renew their membership for 1997 will have their autopatch privileges revoked. Any current member with a BSSS subscription who does NOT renew it for 1997 will be dropped from the mailing list when the club receives its next quarterly billing from BSSS.

### EXCERPTS FROM MINUTES OF DECEMBER 5, 1996 MEETING

Meeting was called to order by President N9GEN. Present were N9GEN and AA9LE.

The minutes of the November 7, 1996 meeting were not available, as Secretary N9GHZ was unable to attend. The treasurer's report was also not available as Treasurer KA9WDX was also not in attendance.

Motion by AA9LE, seconded by N9GEN, to reimburse N9GHZ in the amount of \$23.65 for expenses incurred for postage costs to mail out the 1996 Taylor County Directory of Amateur Radio Operators. Motion carried.

There was no further business conducted. Meeting was adjourned.

### CLARK/TAYLOR COUNTY AMATEUR RADIO EMERGENCY SERVICE (ARES) NEWS

Mike Schoenfuss, N9GHZ  
ARES Emergency Coordinator

Don't forget to try to check into the weekly ARES net held Wednesdays at 8:30 p.m. on the Medford repeater (147.75/147.15). If the repeater is down or

## Red Cedar Repeater Association, Inc.



Steve Hart, KA9OMC, Secretary

E616 810th Avenue

Knapp, WI 54749

**2-Meter Repeater: 146.01 Input/146.61 Output**

Greetings, RCRA sponsors and guests.

Welcome to the new year.

Attendance at the November Social Hour was as follows:

KF9CU Arlene and OM Dave  
N9PPE Jeff  
N9LIJ Jim  
KB9AGC Melvin and YL Sylvia  
KA9OMC Steve  
WB9PMF Tim  
N9VOY Bob  
W9AVM Jim  
N9TTV Glenn

KF9CU, Arlene, presented the group with another Doug's Super Fair Foods label drive check and announced that we have saved 6750 labels since we joined the program in 1990. Thanks all for saving labels.

W9AVM, Jim, shared an album of QSL cards and photos dating back to the 1920s of his and his dad's radio hobby, including dad's original exam and license. Pictures of Jim's restoration of the logs in his home and the burying of antenna cable were also included.

WB9PMF, Tim, was on hand to pick up the Knapp phone patch kit for assembly. Tim reports that sister and husband will be travelling to Zaire to assist a medical practice.

WB9WKO, Ron, reports that he got his deer this year with his airplane. Ron fared better than the plane.

N8MMC, Ed, spent his summer helping a friend restore an ultralight craft that

not functioning properly, alternate frequencies, in order, are 147.15 MHz simplex and 146.52 MHz simplex. You're also encouraged to volunteer for net control duty for the net.

A total of 10 Amateur Radio operators assisted in providing Amateur Radio communications for the 25th annual Abbotsford Christmas Parade at Abbotsford, WI on Saturday evening, 12/7/96. This was down from the total of 15 operators in 1995. Thanks to the following who participated: N9GHZ, N9IAB, N9GEN, N9MHV, KB9BLV, WB0HMS, N9ZLU, N9IFA, N9MED and N9RRF. □

had been crashed a couple times.

N9NOY, Perry at Menomonie, recently reflected on his stint in WW II. His job was to operate a 'dozer'. The local people planted their gardens at sub-level, and this made for a big surprise trying to move the ground at night. Perry indicated that the gardeners tolerated this, considering that their safety was at stake.

We are behind in receiving pledge support for the year 1997. The more recent support includes pledges from KA9-QIJ, N9PPE, KB9AGC, WA9CCB, and WJ9Y. WB9WKO and N9NOY supplied us with auction items. Thanks to those who remembered the repeater.

N9WJY, Rod at Chippewa Falls, worked Hawaii recently on 15 meters, while N9FVA, Chuck, keeps a CW schedule on 20 meters. Charter member K9-GYF, Roger at Amery, keeps a schedule with Charter member K9KGB, Bill from Menomonie, on the repeater.

K9IAG, Ken at Menomonie, reports that the electric train was busy running around his Christmas tree this year.

WB9OKQ, Lyle at Star Prairie, and Rod, N9WJY at Chippewa Falls, report a change in the River Falls exams to the Government Center at Hudson, WI. For more info, contact Brad at (715) 749-3633.

NX9F, Jim Ley at Menomonie (ARRL ARES EC) reports changes at Dunn County Emergency Government staffing along with some possible changes at WMEQ radio in Menomonie, where we typically operate from in severe weather. Jim expects to meet with both parties and give us an update on how we interface.

Please plan to attend the club auction scheduled for February 25, 1997, at the American Legion Post 53 at 634 Water Street, Eau Claire. Auction time is 7 p.m. sharp. Doors open at 6 p.m. for you to set up your items. Equipment should pertain to the electronics hobby. Mark all items with some identification and what you will accept for a minimum bid. W9QAH, Bruce Walther, will auction your items to the highest bidder. Admission is \$3.00 or paid 1997 RCRA support. RCRA will retain 10% of all sales to offset expenses.

*Continued on page 13*



# The Racine Megacycle Club



Club Station W9UDU • Racine, WI  
ARRL Affiliated  
Providing Communications for American Red Cross and ARES



Mary Urban, N9ZWE, Secretary  
c/o RMC • P. O. Box 3 • Racine, WI 53401-0003

## MEETING MINUTES NOVEMBER 11, 1996

The meeting was called to order by President Rob Madson, KF9ZT, at 7:33 p.m. local time. Those present were:

Rob	KF9ZT	President
Kenny	N9WHR	Vice-President
Dave	AA9HL	Treasurer
Alex	N9RGX	Secretary
Lee	N9VNU	Activities Manager

Larry	WA9JMO
Michael	KB9JXX
Alan	N9ZWI
Pete	KB9LXM
Bill	W9OVZ
Spence	W9LDH
Bob	W0WLN
Cheryl	WS9P
Tony	N9ZWM
Robert	N9ZWO
Dennis	KG9DO
Don	KB9HAM
Mary	N9ZWE
Ken	N9NBC
Jim	N9SEM
Bridget	N9XGX
Dan	KA9OIL
Ray	WB9LST
Dave	WB9USI
Paul	N9RGW
Robin	

The Treasurer's Report was accepted as read.

Dave, AA9HL, said that dues coming up due again. Anybody who wants to renew their membership should see Dave.

Lee, N9VNU, said that the January meeting which will be the first official meeting of the new board of directors will be held at the Wustum Museum, 2519 North Western Ave. March, we should be thinking about the Wisconsin QSO Party and we'll be operating the club station. We are also looking for volunteers to head up Field Day. If you want to volunteer to be a co-chairman please let me know.

Rob, KF9ZT, said that we should be thinking about a little more long range plan of having our own place, whether that be in another building with someone else, or our own building or whatever that may be. We need to start moving in that direction that's nothing we're going to do over night. In order to start that move, we've started a separate account which we call a building fund. The money in this account will be used specifically for a facility. If you would like to make donations specifically to the building fund, all money in that account will be directed towards getting a new facility.

Kenny, N9WHR, said that raising the dues will bring money to the club. Mary, N9ZWI said that any raise should go to the building fund, perhaps \$.50. Rob, KF9ZT, said that if we were to have our own place dues would have to be raised to maintain the facility. There was some talk about raising the dues to an even dollar. Alex, N9RGX, said if we're were to raise the dues \$1.00, why not make it five to bring yearly dues (with *Badger State Smoke Signals*) to an even \$20.00. [Currently the dues are \$6.00 and \$15.00 with *Badger State Smoke Signals*.] A motion was made and seconded to keep the dues at the current level.

A recess was called for the evenings program "Wings Helping Youth Fly" the presentation was given by Earl Christensen the Coordinator for Volunteers for the Racine Unified School District.

Discussion continued on raising the dues. Dave, AA9HL, mentioned that since 1948 the dues have gone up only \$1.00. An attempt was made to amend the motion on the floor several times until it was accepted and the motion was amended to raise the dues \$1.00. The motion passed.

## ELECTION

Officers for 1997 were elected this evening. The new officers will be:

Rob, KF9ZT, President

Ken, N9WHR, Vice-President  
Dave, AA9HL, Treasurer  
Mary, N9ZWE, Secretary  
Lee, N9VNU, Activities Manager

The new officers will begin their terms in January.

## DUES

Dues for 1997 membership in the Racine Megacycle Club will be: \$16.00 (with *Badger State Smoke Signals*), \$7.00 (for those who already receive *Badger State Smoke Signals*).

1996 Christmas "Trolley Ride" Meeting will be held Monday, December 9. Pre-Registration is Mandatory. Please contact Dave, AA9HL, for details.

Cheryl, WS9P gave us an update on Bruce, K9RRS's, condition. She said that he and his wife Naomi wanted to thank those who went to help and Lee, N9VNU read the names: Rob, KF9ZT; Kyle, KB9NVT; Larry, WA9JMO; John, WD9DSZ; Joe, KB9HSJ, Lee, N9VNU; Dan, KA9OIL; Dave, WB9USI; Ken, N9NBC; and Don, KB9HAM. Cheryl Continued that according to Naomi, they are saying January first for bringing Bruce home. He is looking better and he is feeling better. (Bruce passed away after these minutes were submitted - BSSS editor.)

Cheryl also said that she and Larry, WA9JMO, have been working on the certificate. Rob, KF9ZT, said after talking to a printer the most advantageous way to go would be to print it on certificate paper from a laser printer or whatever. That way we could print them on demand.

Cheryl then said we are getting a fare number of people signing up for the radio cruise. If you are interested Contact her for details.

The meeting was adjourned.

## The Christmas Trolley Ride

A nice turnout for a wonderful event. The Christmas dinner and Trolley ride has become a tradition with the Racine Megacycle Club. Each December the members and their guests enjoy a great dinner at the festively decorated Chart Room Restaurant on the banks of Root River.

From there everyone boards two trolleys that take them past the decorated homes and businesses in the area. The illuminated wonders makes one wish they had plenty of stock in the power company. The Racine Zoo is the final view on the trek. The Racine Kiwanis clubs maintain and set the Christmas displays that make the trip worthwhile for kids of all ages. It sure is nice to be able to reminisce with longtime friends at this time of the year.

## Happy Holidays!

## Red Cedar Repeater Association

Continued from page 12

The RCRA is not responsible for any loss. Keep track of your stuff. Come to buy, sell, or just have fun. See you at the auction.

The next social hour will be January 28 at the Peppermill Too Restaurant at 1414 9th Street, Menomonie. Meeting time is 7:30 p.m. Volunteers for the auction will be discussed.

Steve Hart, KA9OMC  
RCRA Secretary/Treasurer

## AEA, not AES!

The ham radio rumor mill apparently has begun to confuse Advanced Electronic Applications Inc (AEA) -- which is being sold -- with Amateur Electronic Supply (AES), which is not closing. AEA recently announced plans to sell its three product lines to separate buyers.

The ARRL Letter, 12/20/96



# SHEBOYGAN County Amateur Radio Club

Chris Jacobs, N9VKC, Secretary  
W4065 Dekker Rd., Waldo, WI 53093

At press time, nothing had been received for publication from the Sheboygan County Amateur Radio Club.

## Maxim Memorial Award nominations open

ARRL Headquarters is in the receive mode for nominations for the Hiram Percy Maxim Memorial Award. The award is given annually to the licensed radio amateur under age 21 whose accomplishments and contributions are of the most exemplary nature within the framework of Amateur Radio activities, including, but not limited to:

- Participation or leadership in organizational affairs at the local or national level;
- Technical achievement;
- Operating record;
- Recruitment and training of new amateurs;
- Public relations activities.

In keeping with the tradition of the award when it was first established in 1936, formal nominations are made by section managers. Supporting information, including the endorsement of ARRL-affiliated clubs and elected or appointed League leadership officials, should be submitted with the nomination. An award panel will review the nominations received and select the winner. The prize is a cash award of \$1000, a suitably engraved plaque, and travel and accommodation expenses to enable the winner to attend an ARRL convention for a formal award presentation.

Nominations should document as thoroughly as possible the Amateur Radio achievements and contributions of the nominee during the previous calendar year. Additional information concerning the character of the nominee should be as complete as possible.

The award is intended to provide a tangible reward to those deserving young amateurs who contribute their time, skills and energies daily through their commitment to Amateur Radio. As models for their peers, and inspirations to us all, these fine young people are highly visible boosters of Amateur Radio awareness. We must continue to recognize and encourage their hard work and contributions at every opportunity.

Nominations must be sent to the section manager. Nominations must be received at Headquarters from section managers by March 31, 1997. There is no limit to the number of nominations one may make. For more information or an application form, contact Rick Palm, K1CE, Field Services Manager, at ARRL Headquarters.

--Rick Palm, K1CE,  
in *The ARRL Letter*, 12/20/96

## NTIA report bullish on additional HF allocations

High Frequency (3-30 MHz) Spectrum Planning Options, a planning document released December 13 by the National Telecommunications and Information Administration, says the HF spectrum is flexible enough "to accommodate most, if not all," demands for additional HF spectrum, including new and bigger HF ham bands. The NTIA is an Executive Branch agency in the Department of Commerce that's responsible for developing telecommunications policy and advising the President on telecommunications matters. The NTIA's latest report is a follow-on to an NTIA study released in March 1995 (see *QST*, Jun 1995, p 75).

The Options report addresses spectrum availability and long-range planning options for services that were identified in the earlier report as needing additional HF spectrum—including Amateur Radio. The report cites a potential 900 kHz or so of expanded or upgraded allocations for Amateur Radio in the HF spectrum, including:

- An exclusive, worldwide allocation at 3500 to 3800 kHz
- A new band at 4945 to 4995 kHz (additional technical studies would be required)
- An "aligned worldwide" allocation at 6900 to 7200 kHz (replacing the current band at 7000 to 7300 kHz for the US and the rest of Region 2)
- Expanded worldwide, primary allocations at 10100 to 10350 and 14000 to 14400 kHz
- Expanded allocations at 18068 to 18318, 24740-24890, and 28000 to 30000 kHz.

Some of the potential expansions proposed for amateurs and broadcasting are mutually exclusive or could involve sharing by the two services. These include the potential expansions at 30, 20 and 17 meters. According to the report, ham radio allocations account for 13.1 % of the HF spectrum (3 to 30 MHz). "There are no current plans to auction any HF spectrum," the NTIA report states, but notes that additional allocations for ham radio would come at the expense of other services—primarily fixed, fixed-mobile and broadcasting. "The expansion and upgrading of amateur allocations in the 10 MHz, 14 MHz, 18 MHz, and 24 MHz [bands] appear acceptable; however, this will depend on future decrease of requirements for the aeronautical mobile (R) or the fixed services internationally," the report said. Changes in the 80 and 40-meter bands "will require the inclusion of these proposals in US preparations for future WRCs," the report added. A requested allocation at 6900-7200 would serve "to reduce inter-regional sharing and interference from HF broadcasting in the 7100-7300 kHz band," the report said. The report called the requested upgraded allocation at 3500 to 3800 kHz "a good candidate for a common worldwide exclusive amateur allocation at the 3.5 MHz band." The additional allocation of 3800 to 4000 kHz to the Amateur Service in Region 2 would not be affected.

To help satisfy demand for additional HF spectrum access, the report suggests more efficient use of current allocations, moving current HF spectrum users to other portions of the HF spectrum, use of other non-spectrum technologies and use of higher frequencies. The report also said sharing—and removal of some "exclusive" allocations—might be another option.

Calling ham radio "the oldest radio service" and one that "pre-dates regulation," the NTIA report casts the hobby in a favorable light. "Radio amateurs have made significant contributions to the field of radio propagation, HF single-sideband radio, HF data communications systems, packet radio protocols and communications satellite design." The report goes on to say that ham radio "continues to play an important role in disaster-relief communications, where amateurs provide radiocommunications independent of the telephone network or other radio services."

To view the complete report, set your Web browser to <http://www.ntia.doc.gov/osmhome/reports/hfspo/contents.html>.

The ARRL Letter, 12/20/96



# THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association

Bob Gedemer, KA9JAC

609 Wilson Street • Neenah, WI 54956

Andy Nemec, KB9ALN, Editor • 720 N. Broadway (Upper West) • Green Bay, WI 54303

## WAPR News - January, 1997

Happy New Year!

Best wishes to all of our readers for a safe, happy and prosperous new year. This promises to be a good year for WAPR and the Wisconsin Packet Radio network. As you can see from the meeting minutes below, the push to the West and Northwest continues. Plans to put more nodes on the air are coming to fruition, and conversion of older 6-meter nodes sites to high-speed UHF operation are being considered. It is a rather involved job to do this conversion, and it will take time (not to mention money). Progress is being made, however.

Speaking of node stack improvements, we have concentrated on reports of new network nodes and their conversion to high-speed 9600 baud. But there are other 9600 baud nodes appearing in the state. Two user LAN ports on major node stacks are appearing now, and more may well appear in other areas.

The Green Bay stack has had #GRB4:KE9PW-5 active on 9600 baud UHF for several months now. It is part of the stack that includes WIGRB, and the backbone node #446GB. GRBBBS:KB9ALN-5 also appears on this node stack, and is directly connected to it. This gives access to the network at 1200 baud on VHF, as well as high-speed UHF.

Al, KB9BYQ has informed me that the Appleton node stack will soon have it's own 9600 baud user port. No word yet on the alias or frequency, but it will be a full-service X-1J node. Right now the Appleton Node stack is a major "switching point" for the network. It has two UHF Backbone nodes (one talks to #446GB, the other talks to #NEE6:KA9JAC-6 and #446BC:KB9BYQ-6), as well as a VHF LAN node at 1200 baud. Not only does this arrangement permit BBS mail forwarding, it allows network access to both the KA9JAC BBS and the rest of the network.

With the addition of this UHF LAN node, Al's house will certainly take on the appearance of a porcupine! And it will certainly help those users who have recently purchased 9600 baud TNC's, allowing them to finally utilize this higher-speed. As you know, it is not good practice to operate as an end-user on the packet backbone frequency - backbones are optimized for performance, and often well-meaning users will slow a backbone down by becoming a "hidden transmitter".

So the push to higher speeds is on. As more of these nodes appear on the air, I will attempt to let you all know.

This higher speed operation is just one of the ways that packet radio is changing. As time marches on, we will see even more changes. You will notice that the direction of this installment of "Using the Wisconsin Network" is a little different for the new year. As we look forward in 1997, so will the series. We'll kick off the new year by investigating other networking options and possibilities. This month's installment is a word of explanation and preparation for the topics we will be looking at in the next few months. As we move packet radio along, we will have to look at new and different ways of doing things. This series will prepare you for the future, showing you what to expect, and what networking methods the Amateur Packet radio community is experimenting with.

By now, you may have heard of one major change affecting Amateur Radio, and Packet Radio in particular. Advanced Electronic Applications (AEA) seems to be out of business. From what I understand, the company has not been purchased by anyone, and reports of the phones being disconnected have begun to surface. Perhaps this is telling us something, that the face of Amateur Packet Radio is changing, and changes to the way we operate and network will have to accommodate these changes. While many have theories as to what will change and why, only time will tell what will happen for certain.

Of course, I can't tell you about changes if I don't know about them. If you are experimenting with new and unique methods of packet radio operation, please drop me a line at KB9ALN@KB9ALN.#GRB.WI.USA.NOAM. I will let others

know and perhaps feature your experimentation as part of our "Using the Wisconsin Network" series.

And that is all for now. Until next time, 73 from Andy.

## WAPR meeting minutes from November 16, 1996

The periodic meeting called by Chairman, N9BQM, was officially opened on November 16, 1996 at 1055 a.m. There were nine members present.

The minutes of the meeting of June 9, 1996 were read and approved. Treasurer, KA9JAC, could not attend, so there was no Treasurer's report.

### OLD BUSINESS

It was noted that the membership renewal cards for the ensuing year had been mailed to the membership, and it was further noted that the WAPR By-Laws and membership list have not yet been distributed.

It was reported that the rent at Meteor Hills has been paid through 1997. (\$200.00 per year.)

The nodes at Black Creek and at Rudolph were reported to be up and running.

### NETWORK DISCUSSION

A question of whether we want to continue 6 meter operation in certain areas was informally discussed. It is desired by some to convert to the 70 CM band. At Monene hill, 440, 9K6 is now running. Mike is to put a 446.200, 9K6 port at Tomahawk to talk with NOGMJ. Joel will sent a WAPR TNC to Mike.

It was reported that nodes at Park Falls and Meteor Hills are off.

Building a 6 meter link between W9NNS and Ashland was discussed.

### NEW BUSINESS

A resolution was adopted authorizing N9BQM to sign the necessary papers relating to the use of the Timms Hill location when it is available and rent has been paid. W9NNS indicated he understands that NOGMJ will pay the rent of \$100.

The meeting adjourned at 12:52 p.m.

Respectfully submitted,

Walter Altus, AA9AW, Secretary

## Using the Wisconsin Network - Part 23

by Andy Nemec, KB9ALN

All of us know that technology changes, just like the rest of life. After all, it was not all that long ago that packet radio was a brand-new mode, and more of a curiosity than useful. Not only have various aspects of packet radio operation been improved, there are promising innovations just waiting for the right opportunity to become practical and useful. So far, we have only scratched the surface and have seen a more of an improvement of packet radio rather than a revolution.

This improvement is reflected by the changes we see in the network here in Wisconsin. A few years ago for example, TCP/IP operation was limited to one experimental frequency. Improvements in the programs used and the methods used to route TCP/IP "packets" made it possible to "mainstream" this mode. A good many of the network nodes in Wisconsin are now capable of passing TCP/IP traffic. This only makes sense considering that it is the protocol set used for the Internet. Although our Amateur packet network differs from the Internet, there is a great deal we have in common. It all boils down to computers exchanging information. Whether it is a keyboard chat or sending files to and fro, the common element is this exchange of information.

Right now our network is evolving from the use of two protocols - methods of transporting information. Why would we need other protocols? Think of a protocol as a vehicle used to transport information. The information comes in various types. Think of this information as items that need to be transported.

You would never try to transport firewood through the Northwoods with a Cadillac Eldorado, would you? It is not suitable for the purpose. Likewise, you probably wouldn't want to take a cross-country trip in a logging truck. The Cadillac is better suited for this purpose. The same can be said of protocols. Using AX.25 and Net/Rom will not fulfill the potential that packet radio has - they are not suitable for performing the advanced work we

## WISCONSIN AMATEUR PACKET RADIO MEMBERSHIP APPLICATION

PLEASE PRINT

NAME: \_\_\_\_\_ CALL: \_\_\_\_\_ HOME PHONE: (\_\_\_\_) \_\_\_\_\_

ADDRESS: \_\_\_\_\_ CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

HOME BBS: \_\_\_\_\_ FREQ. \_\_\_\_\_ (Listing your home BBS is important)  
Your HOME BBS should be a full service BBS, not your TNC's mailbox.

MY PACKET STATION OPERATES: \_\_\_\_\_ DAY \_\_\_\_\_ NIGHT \_\_\_\_\_ 24HRS

I OPERATE A: \_\_\_\_\_ DIGIPEATER WITH ALIAS OF: \_\_\_\_\_

\_\_\_\_\_ FULL SERVICE BBS

PRIMARY PACKET INTEREST/EXPERTISE IS: \_\_\_\_\_

\_\_\_\_\_ YES I want to receive Badger State Smoke Signals and I understand that part of my dues goes to pay this subscription. cost \$20.00

\_\_\_\_\_ NO I do not wish to receive Badger State Smoke Signals as a part of my WAPR membership. Cost \$15.00

COMPLETE and return this form with your check or money order - \$15.00 membership only or \$20.00 membership and Badger State Smoke Signals. made payable to W.A.P.R. (NOT payable to Bob Gedemer) to:

Bob Gedemer KA9JAC/WAPR  
609 Wilson St.  
Neenah, Wi. 54956-3129



would like to do.

The bulk of the information transported from one Amateur packet radio station to another is passed in much the same way it was 5 years ago (a long time in the computer world!). If we really want to bring packet radio into the "information age" and find new uses for it, we will have to look at the technology used by the Internet for inspiration. While we don't want to mimic every aspect of the Internet, we can adapt, rework, and refine the technology so that we can use some of it with radio. In the process, we will can come upon innovations unique to Amateur digital radio networking. Innovation is, of course, a natural part of Amateur Radio. Change does not come easy to our packet radio system. Let's stop and think of why things have not changed significantly in the last 5 years. One reason may be that some TNC manufacturers and Amateur Radio equipment vendors find the status quo a comfortable place to be. It makes them money (not a bad thing in and of itself) by rehashing the same old technology. Not to mention the fact that we have not pushed for advanced technology. Until recently, our eyes have not really been opened to new, exciting possibilities. There has been no perceived need to change things, so there has been no effort expended toward innovation.

If we are continue to keep packet radio exciting, we will need increased capability in this mode. Presently, Amateur packet radio is limited to being a mail service, an occasional way to chat, and a way to transfer small text files. Binary files can be difficult because there is no standard transfer protocol that everyone uses. One does not get a graphical user interface and other conveniences like search "engines" that we find on the Internet. If we want to expand the capabilities of packet radio, we may very well have to adjust to new ways of networking - and using the network.

We are doing well getting the Wisconsin network constructed, better than a lot of states. 9600 baud nodes are fast becoming part of the network, and some are even cropping up as end-user LAN nodes. One of the more important steps that WAPR took was recommending the installation of TheNet X-1J node firmware. It's expanded AX.25 and Net/Rom capabilities, in addition to the ability to route TCP/IP, certainly are a great step forward. While we are in a fairly good position to step closer to the "New Age" of packet radio, there is considerable that remains to be done, and new possibilities to explore.

And that is what the next few parts of this series concerns, opening our eyes to new possibilities. We will see new uses for packet radio, and new methods to transport information through a network. We will see how other parts of this country are constructing their packet radio networks and what hams in other countries are doing with their systems. We will discover just what "more" is, how we may get there, and how to utilize it when it does arrive.

After we see what is possible, we will explore a few ways to make your current packet station a little close to the "new age".

Hope you find this direction interesting. Until next time,  
73 from Andy.

#### THE TEST POINT

(continued from page 3)

TESTING: Second Saturday of the month, 9:00 a.m.

Bloomington Amateur Radio Club (BARC)  
Contact: Dan Royer, KE0QR (612) 888-9756

Test Site: Creekside Community Center  
98th & Penn Avenue S  
Bloomington, MN

TESTING: Second Saturday of the month, 9:00 a.m.

Valley Amateur Radio Club (VARC) Contact: Paul Ramey, WG0G (612) 432-1640

Test Site: Hayes Community Center  
14601 Hayes Road  
Apple Valley, MN

TESTING: Second Thursday of the month 7:00 p.m.

W5YI

Contact: Dave Ranney, N0AXL (612) 933-2182

Test Site: Eden Prairie Library  
479 Eden Prairie Drive  
Eden Prairie, MN

TESTING: Third Tuesday of the month 6:30 p.m.

SE Metro Area Radio Club (SEMARC)

Contact: Dave Harrell, N0IPN (612) 459-8678



## Yellow Thunder Amateur Radio Club

WB9FDZ (Original Club Call)  
K9ODK (Robert L. Prine Memorial Call)

Raymond J. Matlosz, N9MLZ, Secretary  
450 West 2nd Street • Reedsburg, WI 53959



The December 13, 1996 meeting of the Yellow Thunder Amateur Radio Club, Inc., was held at the Old Highway House in West Baraboo as a Holiday Party. There was no formal business meeting. A good time was had by all.

OLD BUSINESS: None

NEW BUSINESS: Club Treasurer Jim Decker, WB9UQT, distributed club renewal forms to all club members present to be returned with dues on or before the first club meeting in January.

Next meeting will be a planning session for the club's open house at the February meeting.

The next meeting will be held Tuesday January 14, 1997 at 7:30 p.m. at the Baraboo Civic Center.

Sincerely, Raymond J. Matlosz  
N9MLZ, Secretary

The following members and guests were present:

Bill Hommel	KA9QFJ	Baraboo
Steve Schulze	N9UDO	Baraboo
Karen Schulze		Baraboo
Art Kleefisch	W9WSS	Baraboo
Raymond Matlosz	N9MLZ	Reedsburg
Thomas Harrison	N9PQJ	Reedsburg
George Gabay	N9QQR	New Lisbon
Mrs. George Gabay		New Lisbon
Jim Decker	WB9UQT	Baraboo
Jim Romelfanger	K9ZZ	Baraboo
Ken Johnson	K9DZG	Mazomanie
Dixie Johnson		Mazomanie
George Mc Arthur	N9ZGY	Baraboo
Duane Grotophorst	KA9HKL	Loganville
Anne Klinkner	N9PQL	Sauk City
Bill Klinkner	K9KXX	Sauk City
Jim Paul	N9LKY	Baraboo

Test Site: Cottage Grove fire Station

8641 80th ST., S  
Cottage Grove, MN

TESTING: Third Saturday of the month, 9:00 a.m.

The above information has been furnished by the various VES. However, it is suggested that you confirm time, date and location BEFORE you make the trip to the test site. Occasionally, a test may be canceled and/or dates and locations changed. A Phone call could save you some grief and a wasted trip.

This section of Badger State Smoke Signals is available to publicize your Volunteer Examiner Amateur Radio license examination schedules. Please send us your schedules of dates, times, and locations that you will be conducting examinations and we will include the information here. Be sure to include contact address and any other necessary requirements. Information should be sent to K9EN at the address shown on page 2.



**SSB**  
SELL SWAP BUY

OUR WANT ADS GET RESULTS

FOR SALE: Yaesu FL-1200B linear amplifier, \$375.00. Ten-Tec Century 21 transceiver and Autek QF-1A filter, \$275.00. Diamond SX-200 SWR & power meter \$79.00. Heathkit SB-614 monitor scope, \$50.00. 50 foot tower with 2 meter 12 element beam, 3 element 10, 15, and 20 meter beam. (must be taken down) \$275.00. Ralph, KB9HAH, (715) 356-9825.

FOR SALE: NEC multi-speed laptop computer with manuals and spare monitor. \$100.00. Contact Bill Klinkner, N9KXX, (608) 643-6453 (home) or (608) 643-6908 (work).

FOR SALE: Colorful United States Stamps. 100 all different. \$1.00 postpaid. Richard Regent, K9GDF, 5003 South 26th St., Milwaukee, WI 53221.

#### PRODUCT WARNINGS

The following are possible product warnings that might be required on a package of any and every product, based on the laws of physics and created by Susan Hewitt and Edward Subitzky.

WARNING: This Product Attracts Every Other Piece of Matter in the universe, including the Products of Other Manufacturers, with a Force Proportional to the Product of the Masses and Inversely Proportional to the Distance Between Them.

CAUTION: The Mass of This Product Contains the Energy Equivalent of 85 Million Tons of TNT per Net Ounce of Weight.

HANDLE WITH EXTREME CARE: This Product Contains Minute Electrically Charged Particles Moving at Velocities in Excess of Five Hundred Million Miles Per Hour.

CONSUMER NOTICE: Because of the "Uncertainty Principle," It Is Impossible for the Consumer to Find Out at the Same Time Both Precisely Where This Product Is and How Fast It Is Moving.

ADVISORY: There is an Extremely Small but Nonzero Chance That, Through a Process Known as "Tunneling," This Product May Spontaneously Disappear from Its Present Location and Reappear at Any Random Place in the Universe, Including Your Neighbor's Domicile. The Manufacturer Will Not Be Responsible for Any Damages or Inconvenience That May Result.

READ THIS BEFORE OPENING PACKAGE: According to Certain Suggested Versions of the Grand Unified Theory, the Primary Particles Constituting this Product May Decay to Nothingness Within the Next Four Hundred Million Years.

THIS IS A 100% MATTER PRODUCT: In the Unlikely Event That This Merchandise Should Contact Antimatter in Any Form, a Catastrophic Explosion Will Result.

PUBLIC NOTICE AS REQUIRED BY LAW: Any Use of This Product, in Any Manner Whatsoever, Will Increase the Amount of Disorder in the Universe. Although No Liability Is Implied Herein, the Consumer Is Warned That This Process Will Ultimately Lead to the Heat Death of the Universe.

**Darrow's**  
COUNTRY MARKET

1212 8<sup>TH</sup> STREET  
BARABOO, WISCONSIN

*Scherschel Camera Shop*

EVERYTHING PHOTOGRAPHIC



129 Fourth Street  
Baraboo, WI 53913

(608) 356-9165



**Troyer**  
**Rexall**  
Drug Store  
106 Fourth Avenue, Baraboo, WI 53913  
Jack D. Troyer, R. Ph. - David M. Fahn, R. Ph.



"Good Health Is Our Business"

WE MAINTAIN A COMPLETE RECORD OF YOUR  
FAMILY'S PRESCRIPTION PURCHASES

Phone 356-4964



# SHOPPER'S GUIDE

## SWAPFESTS



**25th ANNUAL MIDWINTER  
SWAPFEST**  
WAUKESHA EXPOSITION  
CENTER  
WAUKESHA, WISCONSIN  
**SUNDAY**  
**JANUARY 12, 1997**

1996 WINNERS  
Christopher D. Molek, KB9GTR,  
Richard Center  
Karl J. Mueller, N9NFO, West Allis  
Amy L. Thibaut, N9TLN, Wisconsin Rapids

Both sponsored by:  
**THE WEST ALLIS RADIO AMATEUR CLUB, INC.**  
P. O. BOX 1072 • MILWAUKEE, WISCONSIN 53201

**HAM IT UP EVERY SPRING!**  
**MADISON SWAPFEST**  
**SUNDAY, APRIL 13, 1997**  
Dane County Expo Center  
Exhibition Hall  
Sponsored by MARA/W9HSY  
P. O. Box 8890 Madison, WI 53708-8890  
Swapfest Information Line: (608) 245-8890

**SOUTH MILWAUKEE AMATEUR RADIO CLUB**  
**SWAPFEST 97**  
**July 12, 1997**  
(Held every July)  
**American Legion Park**  
**Shepard Avenue • Oak Creek, WI**  
(414) 762-3235 Extension 58  
P. O. Box 102 South Milwaukee, WI 53172

**Fox Cities Hamfest**  
**Sunday, November 2, 1997**  
Starlite Club, Hwy. 55 north of Kaukana

HAMFEST INFO:  
Chad Pennings, N9PRC  
318 E. Brewster St.  
Appleton, WI 54911  
(414) 759-0799

EXAM INFO:  
Larry Siebers, KD9IA  
(414) 759-1167

**Lakeshore Hamfest**  
and Computer Swapfest  
**Manitowoc County Expo**  
Intersection of Hwys. 42-151 and I-43 on Cty. Hwy. R  
**Saturday, May 10, 1997**  
For more information, call:  
Glen, AA9MT: 414-684-7096  
Red, N9GHE: 414-684-9097 (nights)  
ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

**TRI-COUNTY ARC PRESENTS**  
**HAMFEST 1997**  
**YOUR SPRING FAVORITE!**  
**Sunday, March 16, 1997**  
**Jefferson County Fairgrounds**  
TCARC • 213 Frederick Street  
Fort Atkinson, WI 53538  
414-563-6381  
Evenings

**20th Annual**  
**CWRA Swapfest**  
**Sunday, June 8, 1997**  
**8 a.m. to 2 p.m.**  
**JUNCTION CITY VILLAGE PARK**  
Info: John Feltz, WA9LWJ (715) 457-2506  
973 E. First Street Junction City, WI 54443

**Eau Claire Amateur Radio Club**  
**SWAPFEST**  
**Saturday, July 12, 1997**  
**Eau Claire County Fairgrounds**  
Intersection of Highways 93 and I-94  
Carol Ceraso • (715) 723-9205 Liz Searing • (715) 834-1303  
P.O. Box 1867 • Eau Claire, WI 54701  
<http://www.edp.net/~mceraso/hamfest.html>

**RACINE HAMFEST 97**  
**Sunday, July 27, 1997**  
**8 A.M. - 2 P.M.**  
**SOUTH HILLS COUNTRY CLUB I-94**  
East Frontage Road  
Between Highway 20 and Highway K  
**OUTDOOR AND INDOOR SALES**  
Free Tailgating  
Air Conditioned  
Commercial Dealers • Forums  
**TABLES \$8.00**  
Advance Tickets \$ASE and \$4.00  
Send to RMC, P.O. Box 3, Racine, WI 53401

**Ozaukee Radio Club**  
**19TH ANNUAL RADIO AND  
COMPUTER SWAPFEST**  
**Saturday, May 3, 1997**  
**8 a.m. to 1 p.m.** • Circle B Recreation Center  
Intersection of Highway 60 and County I  
Exams by Badger Examiners, c/o Gary Sharbuno,  
5119 W. Willow Rd., Brown Deer, WI 53222  
Swapfest sponsored by the Ozaukee Radio Club  
W58 N985 Essex Drive, Cedarburg, WI 53012-1439

**Adams County Amateur Radio Club**  
**SPRING HAMFEST**  
**Sunday, June 1, 1997**  
**Adams County Fairgrounds**  
West of Hwy. 13 on Cty. J • Friendship, WI  
**8 a.m. to 2 p.m.** • Seller Setup at 7 a.m.  
Talkin on 145.29 Adams Repeater  
Adams County Amateur Radio Club  
Friendship, WI 53934  
P. O. Box 232  
(608) 564-7887  
Packet: N9TD-1 on 145.03

**Red Cedar Repeater Association, Inc.**  
**AUCTION**  
**February 25, 1997 • 7:00 p.m.**  
**American Legion Post 53 • 634 Water Street**  
**Eau Claire, WI**  
CONTACT:  
Steve Hart, KA9OMC  
E616 810th Ave.  
715-665-2374  
Knapp, WI 54749


## PRODUCTS AND SERVICES

Plan to attend the 3rd Annual SuperFest  
& 40th Anniversary Celebration at ...  
**AMATEUR ELECTRONIC SUPPLY**  
Friday May 2nd — Saturday May 3rd  
3:00 PM—8:00 PM 9:00 AM—5:00 PM  
Over 36 Ham Manufacturers with Displays • Seminars  
VE Testing • Ham & Computer Flea Market  
SuperFest Specials • Promotional Items • 100+Prizes  
Grand prize: Las Vegas Trips • More!  
414-358-0333 • 5710 W. Good Hope Rd., Milwaukee, WI 53223 • 800-558-0411




**Radio Recyclers**  
M, Tue, W, F ... 10-5  
SAT ..... 10-2  
**USED AMATEUR RADIO EQUIPMENT**  
**Neil Lawton WK9Q**  
**414-771-7121**  
**Buy • Sell • Consignment**  
7730 W. National Avenue • West Allis, WI 53214

Dick Scarvaci K9 CAN  
**K9---CAN-FIX**  
**AMATEUR RADIO EQUIPMENT REPAIR**  
**EVENINGS AND WEEKENDS - CALL AHEAD**  
(414) 375-6900 Grafton, WI 53024

**Craig Henderson** Phone (419) 352-4465  
**N8DJB** Hours: 10 - 5  
  
**Rotor Doctor**  
**Rotor Parts and Repair**  
  
7368 S.R. 105 Pemberville, OH 43450

(715) 644-2112 FAX: (715) 644-2621  
**RICH'S GENERAL STORE AND SURPLUS**  
Route 2 • Stanley WI 54768  
**"YOUR DISCOUNT HAM SOURCE"**  
Alinco mobile HF, VHF/UHF, and HTs  
Ask if any Alinco factory closeouts are currently available!  
BOOKS • CASSETTES • VIDEO TAPES • GARMIN GPS  
Jo, N9MEI Rich, N9MEH  
(800) 646-RICH

**BATTERIES**  
BATTERIES FOR ALL YOUR POWER REQUIREMENTS  
NICKEL CADMIUM  
SEALED LEAD ACID  
GEL CELLS  
ALKALINE  
LITHIUM  
  
**E.H. YOST & COMPANY**  
2211-D PARVIEW RD.  
MIDDLETON, WISCONSIN 53562  
TELEPHONE (608) 831-3443  
FAX (608) 831-1082

**TOWER ELECTRONICS**  
CONNECTORS, ADAPTERS, AND MORE  
  
P.O. BOX 12631 2205 DOROTHY LANE  
GREEN BAY, WI 54307 GREEN BAY, WI 54304  
1-800-662-3422  
(414) 496-0989

Have you considered becoming an  
ARRL Volunteer Examiner? If you  
are 18 or older, and are presently a General, Advanced,  
or Extra class licensee, the ARRL/VEC would be glad to  
hear from you. Feel free to contact the ARRL/VEC at  
(800) 927-7583 and request our Prospective VE  
Packet. Very 73 to all my friends in Wisconsin!  
**ARRL VEC**  
Bart Jahnke, W9JJ/1 • ARRL/VEC Manager

**VCR SERVICE**  
**North Freedom Electronics**  
Same day service by appointment  
VCR Cleaning: \$19.95  
Computers • Musical Instruments  
Stereos • Auto Sound • CDs • CBs  
Sorry, no TVs or stacked stereo systems  
HOURS MAY VARY - CALL AHEAD  
John Schmelzer (608) 522-4366  
201 E. Walnut, Box 18 North Freedom, WI 53951